NEW FIRM FORMATION AND BUSINESS DEVELOPMENT

A STUDY OF NEW INDEPENDENT FIRMS IN WALES

BY

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DECLARATION

While registered as a candidate for the Degree for which this submission is made I have not been a registered candidate for another award of the CNAA or of a University during the research programme and no material contained in the thesis has been used in any other submission for an academic award nor has any of the material been published in advance.

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N.E. GRIFFITHS: New Form Formation and Business Development - A Study of New Independent Firms in Wales

ABSTRACT

Very little is known about the small firms sector and the new firm formation process in the Welsh economy. This study attempts to bridge this gap in knowledge and adds to the growing body of information on new firm formation and development in the U.K. and its regions.

The approach adopts a largely microeconomic perspective within a business policy strategy. Data is obtained from interviews with the founders of some 61 new independent firms in South Wales. Further information is derived from interviews with representatives of the major banks and support agencies in the Principality.

The study, therefore, provides data which allows a comprehensive comparison with studies of other areas and an assessment of the new firm formation process in Wales. Information is provided on both the initial start-up and the development of new and independent firms. This study also makes a contribution to knowledge in several other areas:-

1. It outlines a method to estimate the importance of new firms in employment generation in Wales. This method could usefully be extended to other regions and indeed to the U.K. as a whole.

2. It provides statistics on the size distribution of firms in the private manufacturing sector of Industrial South Wales which can also be classified according to ownership status. A potentially important factor in the new firm formation process.

3. It shows that existing theories of price determination are largely inadequate at describing methods of new firm pricing. Data are presented on the pricing practices of firms when they first enter a market and a representative model of pricing methods in new firms is suggested.

4. It attempts to relate various microeconomic concepts to the very specialised situation found in new firms, both at the time of start-up and during the infant stage of business development. Barriers to entry, scale and location decisions and limits to firm growth are considered in this context.

TERMINOLOGY

Small Firm: For the most part, this study adopts the qualitative definitions identified by The Bolton Committee. A small firm is, therefore, one which has a small share of the market; is managed by the owners and is independent of a larger enterprise, allowing independent decision making. Where the small firm is referred to in the statistical sense the most widely used (U.K.) quantitative definition of 200 employees or less is adopted.

New Firm: The new firm is also referred to as the start-up. It refers to the birth of a wholly new and totally independent entity. Unless otherwise stated, both new firms and start-ups relate only to independent firms and not new branch plants, subsidiaries or transfers of existing firms.

Firm: The firm, the company, the venture, the business and the enterprise are all taken to be synonymous.

Entrepreneur: The entrepreneur is also the founder, the person who 'undertook' the start-up process, coordinated resources at the start-up stage and directly managed and controlled the business in its infancy.

Coordination: The activity of reallocating resources specifically the allocation of resources which occurs as a direct result of entrepreneurial activity. The entrepreneur purchases and/or enters into contract with factors of production. In this study there are basically two types of coordination:-

i) Start-up coordination, which is the harmonisation of decisions and allocation of resources during the start-up process up to the point where trading actually begins.

ii) On-going coordination - the allocation of resources within the framework of the new business, the day-to-day management and control of the business.

Screening:

Screening is effectively a process of assessment. The outcome of this assessment results in either a passage through the screening process or being retarded or stopped by the screen. Basically, the screening process can be viewed as being made up of a filter (or sieve) and while there may be many levels of screening, the financial screening process is the one usually referred to in this study. This is also referred to as the third party screening process.

Industrial Classification:

In order to allow adequate sample sizes for the sub-divisions, the industrial groupings for this survey have been classified in the following manner:-

Survey Group:	SIC (1980) MLH
1. Mechanical Engineering:	320-329
2. 'Other' Metal Goods:	311-316, 330-374
3. Textiles and 'Other' Manufacturing:	411-456, 481-495
4. Printing and Paper:	471-475
5. Wooden Articles:	461-467
6. 'Other' Services:	611-619, 671-673, 921-950 723
7. Business Services:	831-840

Where mention is made of the service sector it is usually meant to refer to those sectors identified above, namely 'other' services and business services.

CHAPTER 1

INTRODUCTION

The birth of any new firm is a unique occurrence. For the founder it provides a distinct alternative to other labour market options available and to the economy the new firm is a vital component of structural dynamics. Indeed it is difficult to think of any branch of economic theory that is not significantly affected by the birth of new firms.

The 'new firm' is usually seen as a special case of the 'small firm' and until the 1970's the small business was seen in the light of increasing industrial concentration, furthermore, by insight rather than research, the small firm did not seem to conform very well with established microeconomic theory and the levels and trends in unemployment were less alarming than at present. With the publication of the Bolton Report, the mid 1970's saw an increase in interest in the small firm sector. Research was directed at proving that small firms played an important role in economic development - particularly as generators of new employment.

The early 1980's saw a backlash against small firms, however, as the results of research work pointed to considerable reservations about small firms as generators of employment (particularly in the U.K.) Current research into the small firm sector is concentrating on individual characteristics rather than broad generalisations of its overall role in employment generation and recognition of the extreme levels of heterogeneity in the sector has caused research to concentrate on the manufacturing sector and become localised in geographical coverage with the subject matter more specialised and structured. It is against this background that this study must be viewed.

Reasons for Study

During the late 70's and early 80's considerable theoretical and empirical work was carried out by a number of researchers into the 'theory of new firm formation' and the significance of the small firm economy to local, regional and national development.

The nature of these studies required a limited geographical coverage and so, as various regional and sub-regional surveys were reported, a large amount of evidence on these subjects became available and researchers in one area were urging similar studies to be carried out for other regions, both in the U.K. and internationally.

Studies were carried out for Scotland, (Cross, 1981); North East England, (Storey, 1980); the East Midlands, (Forthergill and Gudgin, 1979); South Hampshire (Mason 1982), West Midlands (Firn and Swales, 1979) and the Northern Region (Johnson and Cathcart, 1979). Wales and the South West were missed out in these regional studies. In fact it seems that relatively little is known about the Welsh small firm sector let alone new firm formation in particular. Such a lack of information and research into the Welsh small firm economy seems to be a major gap in the literature. It is not possible, therefore, to compare characteristics of new Welsh firms with those of other regions of the U.K. or internationally. Is the new firm in Wales an important source of new employment? Are the types of business start-ups in the Principality similar to those of other depressed regions such as Scotland? Does the new firm in Wales conform to characteristics of other areas?

The only major study of the small firm sector in Wales so far traced is that undertaken by Elbeik (1982), who was concerned with various aspects of small manufacturing firms in the Principality. The Elbeik survey, however, was mainly concerned with firms employing 200 and 400 people and which were quite old and established businesses (70% were over 11 years old). Elbeik, in fact, noted that there had been no detailed research of the Welsh small firm economy and had not been able to find any literature on the subject other than speculation and broad generalisations.

Despite numerous studies for other areas few had extended their scope outside examining the characteristics of founders and nature of business start-ups. Very little is known about the microeconomic problems of the new firm, for example, how important are barriers to entry in practice, how they are perceived by founders? What factors determine the size of the initial start-up? How do founders fix a price initially in the absence of

previous experience of that practice? And after start-up what factors limit the early growth of the firm? What characteristics are associated with the development of the infant firm?

Aims of the Study

The aims of this study, therefore, are to provide an analysis of the new firm formation process in Wales; to document the start-up and infant development characteristics of businesses in the region and to discuss the degree to which the Welsh firms surveyed conform to those of other areas. Furthermore, relevant microeconomic theories will be discussed in context of the special situations found in:-

a) the start-up itself

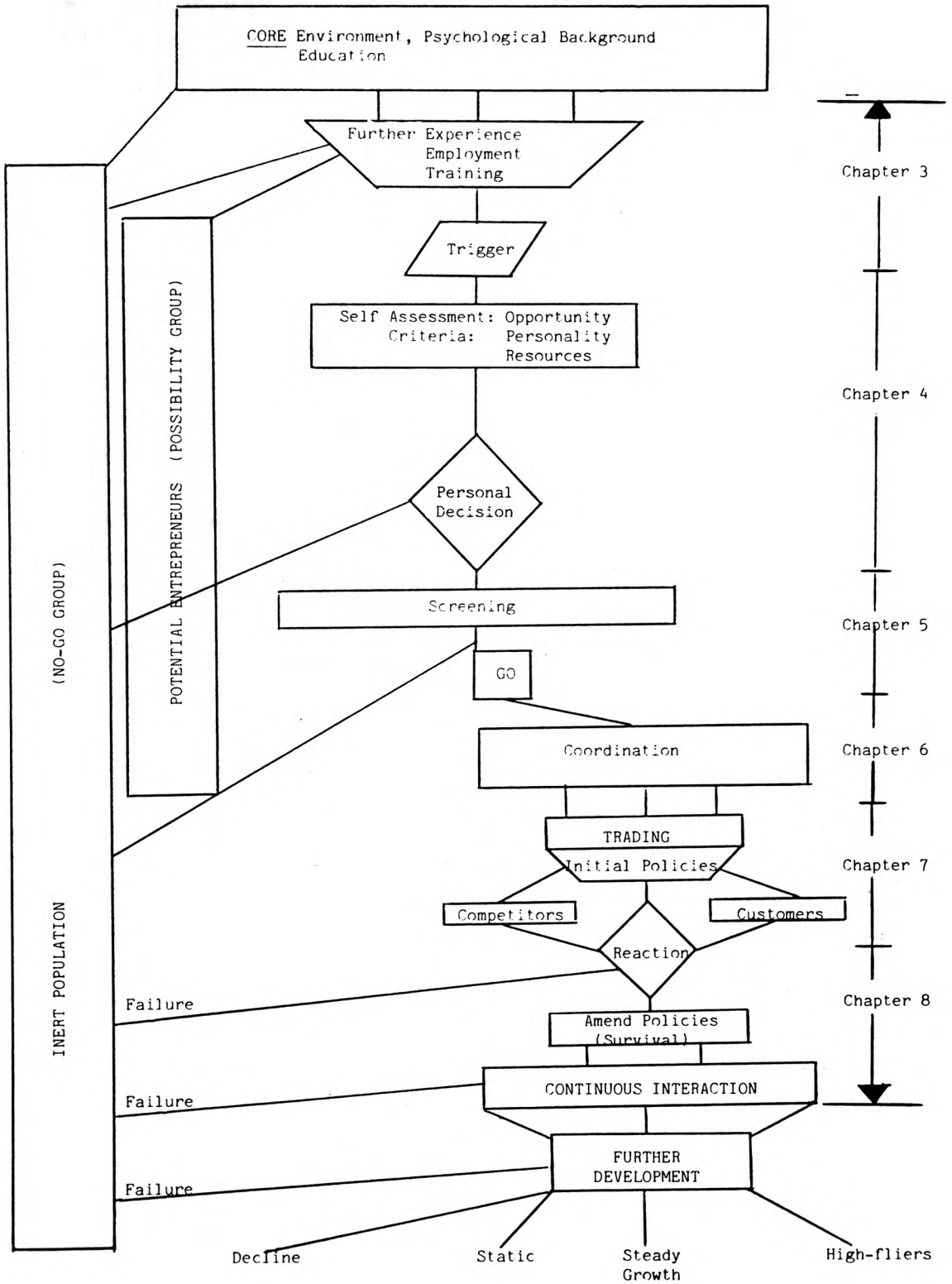
b) the early infancy period of the firm

The Study

Since this is the first survey of the new firm formation process in the Welsh economy the approach takes a broad perspective with data on both manufacturing and certain service sector firms. The heterogeneity of new firms and the need to make comprehensive comparisons with other studies necessitates this broad ranging approach. The main body of data used in this study was obtained from a series of semi-structured interviews with founders of new independent Welsh firms, 61 business interviews were undertaken during 1985. Additional information was derived from interviews with several major support agencies and the clearing banks in Wales.

In order to define the scope of this study and how it fits into this broad subject area, a conceptualised process view of events (stages) leading up to and following a discreet business start-up is shown in Figure 1.1. The early stages of this process are outside the scope of this study

Figure 1.1 A Process View as an Outline for Study



and are principally the domain of sociologists and psychologists[1]. While certain entrepreneurial characteristics will be identified, no attempt will be made to relate these to psychological theories of entrepreneurship such as 'need for achievement' or 'locus of control'. Despite this it is recognised that these psychological traits may mean (even at an early stage) that a significant proportion of the population may be unsuitable for entrepreneurship and enter the so-called 'inert group'.

The study begins by reviewing a series of hypotheses about the previous experience of firm founders in terms of the local industrial structure or incubator environment. The next stage, as shown in Figure 1.1., is a series of events which may have acted as a trigger, such as redundancy, starting a process of self-assessment which takes into consideration the personal qualities, the resources available and the perceived opportunities. On the basis of self-assessment, a decision is made in the context of the persons labour market alternatives. If the decision is to go ahead with a business idea the next stage is usually one of formal screening by a third party - such as the approach to a bank or other financial institution for backing. The institutions involved in this screening process have a set of criteria which filter applications and the relationship between the criteria used and type of application is vital to the number of entrepreneurs who actually start-up a business.

After the results of screening the decision to go ahead by a successful entrepreneur is followed by the need for coordination on the part of the founder. Suppliers, customers, premises, labour and finance have to be found and coordinated.

The actual trading of the business may now begin as a result of the coordination start-up process and the initial policies adopted by the 'firm'. Competitors and customers will react to the entry and policies adopted by

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1 A review of the work of psychologists into 'entrepreneurship' is undertaken by Perry, MacArthur, Meredith and Cunnington (1986), pp.55-62. See also Storey (1982), pp.77-92.

the newly born firm and the feedback will probably result in the amendment of policies and attitudes in an attempt to survive. This feedback will be the first stage of the learning process (or a continuous interaction) which will largely determine the future development of the business. The early infant stages of the firms life cycle will, therefore, be studied, but other developments as the firm enters its youth or middle age are outside the brief of this study[1].

Figure 1.1 provides an outline for this study. The chapters follow this process view of events. Chapter Three reviews the efficiency of the Welsh economy as an incubator for the formation of new firms. Trends in employment and unemployment and specific characteristics of the Welsh economy may explain the 'climate of incubation'. Available data on new firm formation is presented.

Chapter Four determines the elements that make up the supply of entrepreneurs. The characteristics of new firm founders are compared with 4 major studies in the U.K. and the extent to which the Welsh survey conforms to aspects of new firm formation theory is assessed.

Chapter Five is entirely devoted to Finance, which is particularly looked at as a screening process. The effective supply of new firm founders is in part determined by the nature of the financial screen (filter) and this is examined in depth from both the banks and the founders viewpoints. The analysis in this section is used as a starting point for a simple simulation model used in Chapter Nine.

Chapter Six considers the problems of coordination involved in the start-up process in addition to that of obtaining finance.

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1 A follow up study of the start-up firms interviewed would allow a further analysis as the firm develops beyond the infant stage.

Chapter Seven examines some microeconomic factors at the start-up stage. What factors determine the scale of a start-up? What do founders perceive as important barriers to entry, with particular reference to competitors reactions both perceived and actual? It suggests that barrier theory should address itself to the medium through which entry barriers are actually assessed - namely the financial screening process. Chapter Seven also examines the importance of the initial pricing decision of new firms. Existing explanations are shown to be inadequate for the unique problem of initial product pricing in the vast majority of new enterprises. Survey data is presented and a representative model of new firm pricing is suggested.

Chapter Eight considers the changes in policies, attitudes and perceptions that occur after the initial feedback from customers. It traces the aspects of growth and development of new firms in their infant stage of the firm life cycle and limits to infant growth are highlighted.

Chapter Nine takes a macro perspective using the survey data and V.A.T. statistics. A method is outlined to estimate the numbers of jobs created in new firms in Wales. Estimates are made separately for both manufacturing and certain service sector firms, these are then compared with jobs created under traditional regional policy. Given these estimates the role and performance of various small firm support agencies is outlined and tentatively assessed.

The Role and Importance of New Firms

The main conceptual problem that effects this research is that once a business has started, then at the risk of stating the obvious, it becomes a 'small firm' and ceases to be a start-up, although it may continue to be called a 'new firm' as such for a number of years after it was 'born'. The start-up stage is effectively an interface between informalised coordination of economic actions, (non-entity) and some more formalised organisational structure, that is a 'small firm'.

The role of the new firm in the economy is then intimately linked with the role and importance of small firms per se. Before concentrating on new firm formation and development it is necessary to briefly examine the importance of small firms in general to the economy.

Attitudes on the role and importance of small firms have undergone considerable change, particularly since the publication of the Bolton Report in 1971. One of the main features of changing industrial structure this century has been the increasing concentration of British manufacturing output and employment by the largest firms in the economy.

The counterpart to the increasing large firm concentration has been the decline of the small manufacturing firm which shows a long term downward trend. Figures 1.2 and 1.3 reproduce data derived by Prais (1976, pp.185-188) in graphic form. Clearly, the number of very small manufacturing establishments in the U.K. slumped between the 1930's and the mid 60's (the figure for 1968 is only about 37% of the 1930's total). Furthermore, while data on employment in these establishments is more limited, Prais shows that between 1930 and 1954 employment in small U.K. manufacturing units (10 or less employees) fell by 140,000.

It would seem that the role of the small firm in the economy has been declining quite markedly and it may, therefore, seem odd that there should be so much research effort devoted to and interest in the small firm sector. To put this in perspective it is necessary to review some of the reasons put forward to explain the increasing importance of giant firms.

The survivor principle (Stigler, 1958) would predict that since larger firms were making up a larger proportion of output and employment, then this must be because large firms are more efficient than their small firm counterparts, particularly the large scale at plant level was the most efficient size, furthermore, this arguement could be used in the majority of industrial groups -(Evely and Little (1960) show that concentration had increased in twice as many sectors as it had fallen between 1935 and 1951).

A number of reasons for the trend towards increasing concentration being experienced over this period in almost all developed countries, were put forward. Schumpeter argued that large organisations tended to have monopoly power resulting in an enormous incentive to introduce cost reducing innovations and indeed large firms were seen to be spending more on R&D per employee than small firms (Freeman, 1974). Allied to Schumpeter's views on innovations in large firms were the increasing awareness of economies of scale at the plant level, furthermore, with the expansion of international trade in the post-war period the scope for reaping economies of scale in production increased considerably. If technical economies of scale at the plant level meant that the minimum efficient size of production was large compared to the size of the market, then only a relatively small number of large plants would capture a major share of the market. In the words of Bannock (1981, pp.82-83) - "These powerful ideas took their grip upon the minds of many economists and they seemed to be pointing to the rapid disappearance of any significant role for small firms in modern economic development".

In fact, a number of important issues came to light, particularly in the 1970's and these caused a reappraisal of the role of the small firm in the economy, it is against this background that we must view the present study.

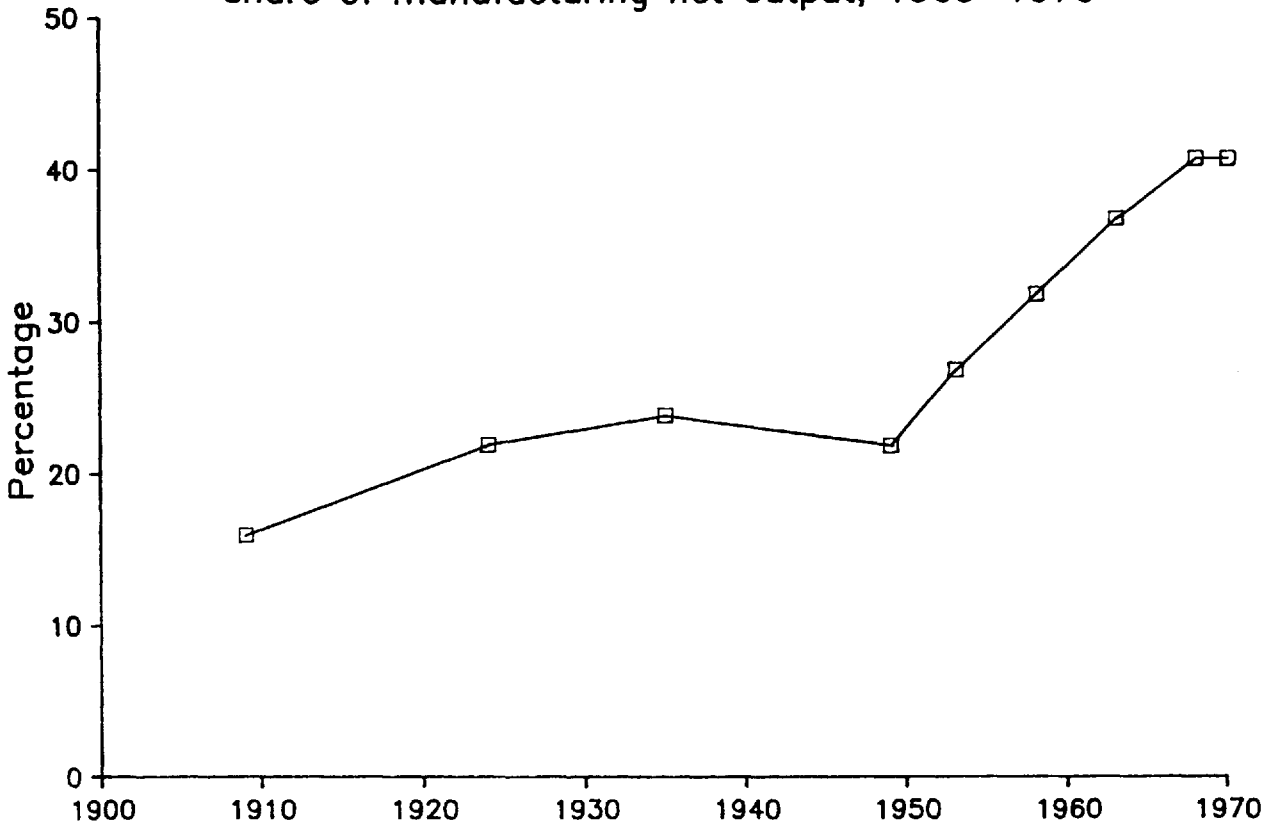
Firstly, a number of studies have shown that R&D work is more productive in small, rather than large firms - Hay and Morris (1979, pp.446-450). The Bolton Committee (1971) reported - "Many of the greatest technical advances right up to the present day (1969) have been made by small firms and often by individuals working in small firms". (p.77).

Secondly, Prais (1976) provided evidence that technical economies of scale at the plant level was unable to explain increasing concentration and Hannah and Kay (1977) found that most of the increase in concentration was, in fact, the result of mergers rather than internal growth of giant firms. Despite this, however, it must be noted that

Figure 1.2

The hundred largest enterprises in the UK

share of manufacturing net output, 1909–1970

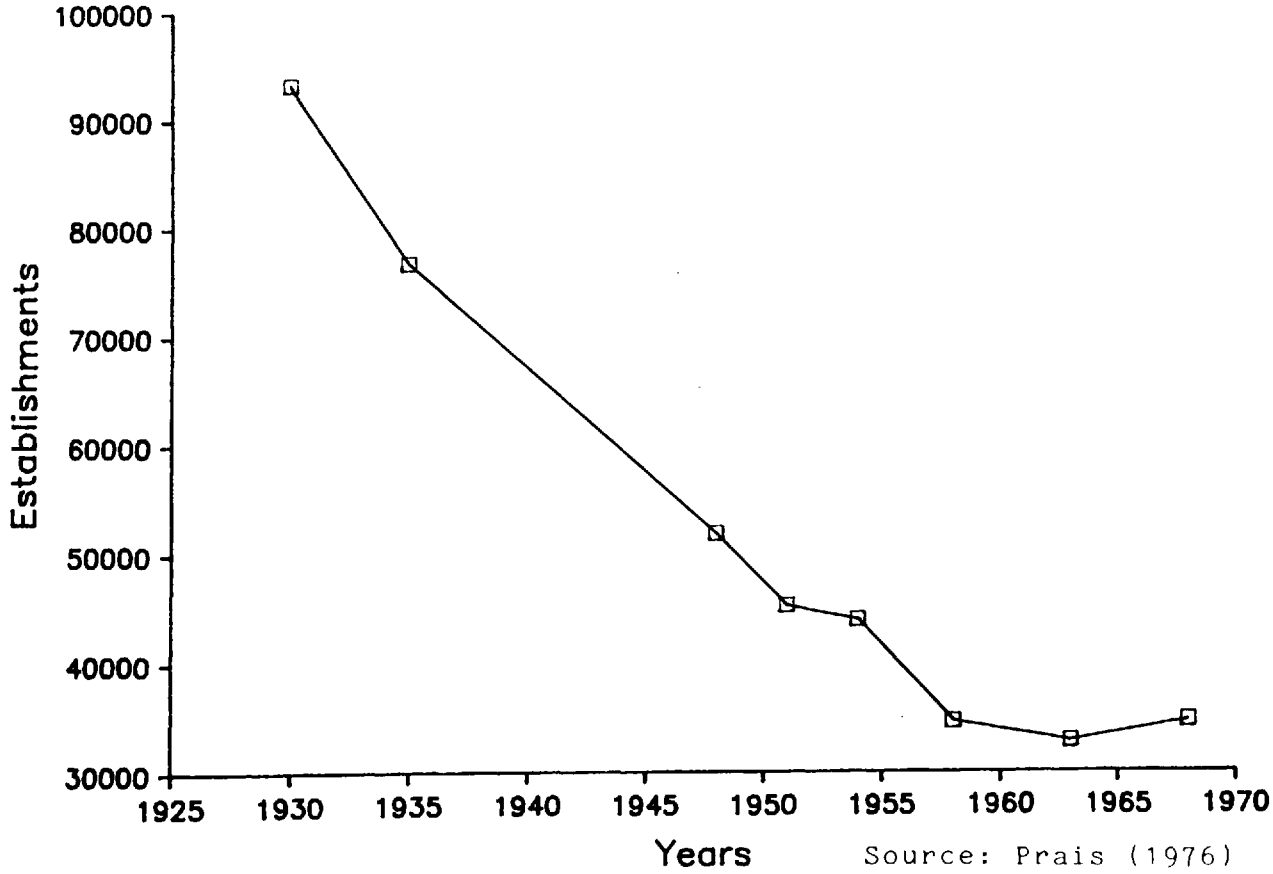


Source: Prais (1976)

Figure 1.3

Establishments with ten employees or less

1930–68



Source: Prais (1976)

there will be significant non-technical economies associated with the increase in the size of the firm and indeed the Bolton Committee report (1971) highlighted many of the reasons why small firms were at a comparative disadvantage to their larger counterparts.

Apart from the theoretical reappraisal of the role of small firms in the economy during the early 1970's, there seems to have been important changes in the trends in concentration. In fact, it seems that the rate of increase in concentration fell sharply, so that between 1968 and 1977 market concentration was actually stable[1].

The most significant reappraisal of the importance of small firms came, however, in the form of their ability to create jobs. Economists had for a long time been interested in the question: where do jobs come from in the modern economy? The analysis of such questions had mainly been concerned with structural and sectorial differences in employment creation (and loss). It was established that the old staple and primary industries were contracting and other sectors, particularly service industries, were the growth areas in the economy. This type of approach is basically a 'vertical dimension' and has been the subject of much study, particularly as an explanation of regional problems and the erosion of the manufacturing base. The late 70's saw the development of another dimension as a way of analysing the job creation process. This was a horizontal dimension - one of firm size. The difference in the two dimensions are noted by Joan Mitchell (1980).

The concentration of study on differences in firm size and the importance of each size group as generators of employment were highlighted by studies by Birch (1979) for the U.S. and Fothergill and Gudgin (1979) for the U.K. Both these studies took the size of firms as the major variable effecting the distribution of new jobs and job losses. This marked a considerable break with the vertical dimension (industrial sectors) approach. Both of these studies concentrated almost entirely on size and little account was taken of the sectorial distribution.

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1 Utton (1982) argues that when adjustment is made for foreign trade the 5-firm concentration ratio actually fell over that period.

The results of both studies have a number of limitations and the work of Birch in particular has been criticised (Johnson and Storey, 1986, Armington and Odle (1984) and Storey (1982)). Birch however, did find that 2/3rds of all net new jobs in the U.S. over the period 1969-76 were 'created' by very small firms of less than 20 employees and indeed small firms of less than 100 employees made up as a group over 81% of net jobs created.

Both Fothergill and Gudgin and Storey (1982) have warned of the dangers of drawing policy conclusions from these figures, since Birch failed to draw the distinction between manufacturing (wealth creation) and service sectors. However, Fothergill and Gudgin broadly confirmed Birch's findings that the smaller firms were providing net additions to employment (in the U.K.) and that larger firms were net losers of jobs (even in the manufacturing sector). While they conclude that small firms are important, they argue that they have not been, or are likely to be, the overwhelming source of new jobs in the U.K. For example, between 1968 and 1975 in the East Midlands, firms in the size band 0-20 employees increased total employment by only 2.7%.

A more recent U.K. study by Gallagher and Stewart (1984), clearly shows that small firms make a disproportionately larger contribution to job creation - in contrast larger companies have a much poorer performance. Their study shows that over 50% of all new jobs were created in firms employing less than 100 people and while this is clearly a smaller contribution than Birch suggested for the U.K., it is still a highly significant contribution to job generation especially when one considers that firms of less than 100 employees make up less than 30% of total manufacturing employment in the U.K.

Even a review of the Census of Production 1979-1982 reveals that only manufacturing establishments with 20 employees or less showed any net increase in employment at all. It can be seen, for example, that larger manufacturing firms were significant net losers of jobs with those employing 1,000 or over recording net falls in total employment of around 1/3rd compared to the 1979 base year.

Despite all this evidence, it is obviously a vast over-simplification to argue that because small firms in general are more significant generators of jobs than large concerns, then smallness is the most important factor - in short, the horizontal dimension to analyse may have gone too far. As Joan Mitchell (1980) asks - "There is serious question as to whether size has any real economic significance either for analysis or for policy. Small may be beautiful, but is it operationally useful to economists?"

The following provides some indication of the importance of small firms in general to the study of economics, in addition to their job generating role outlined above.

1. Small firms are a good proxy for what might be called the margin of the market. Since economists are overridingly concerned with marginal changes then they must clearly attempt to understand the role of the small firm as a prime indicator of changes in marginal advantages or disadvantages of a particular size, of a particular commodity or service, etc.

2. Small firms, almost by definition lack market power[1]. Their small share of the market means that they tend to correspond more closely with the conditions of perfect competition than do larger firms, (they are price takers). This, together with lower unionisation and better industrial relations[2] means that they tend to act as a damper on cost push based inflation and will only passively react to a demand pull type inflationary process. Any growth in the economy which occurs through the medium of the small firm sector might, therefore, be thought to be relatively inflation free growth.

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1 See the Bolton Committee (1971) definitions of small firms.

2 A review of evidence on this subject is given in Storey (1982).

3. Since small firms tend to be labour intensive, any increase in employment in small firms will be greater than that in a corresponding large firm - to meet a given increase in output (and in light of the current high levels of unemployment such an arguement may be politically attractive).

4. Small firms employment (200 employees or less) makes up the majority of the working population (CBI, 1980, pp.12-13). As a result particular factors which affect small firms in general will have important implications for the economy as a whole.

5. The Bolton Committee accepted that small firms are generally more adaptable than larger ones, especially in the short run. It is possible that they can react to changes in the market place faster than a large organisation with centralised decision making and large fixed capital investments in inflexible capital intensive production facilities. (Prais (1976) uses this arguement to explain the hiccup in the decline in manufacturing establishments that occurred during the Second World War).

6. Small firms have an economic role as both competitors to and complements to larger firms. Large, highly diversified firms often trade in relatively small specialised goods (as well as the mass markets). In these markets small specialist firms can provide a real competitive alternative to the large firms, possibly restricting prices to a level more closely resembling that of competitive markets than would otherwise have been the case. Furthermore, since the costs of collusion of large numbers of firms may be prohibitive, then small firms protect the economy from being subjected to even more monopoly power and the resultant erosion of competitive markets. Not all small firms are direct competitors with large firms, many service markets that are too small for the giant enterprises to be concerned with. They fill niches in relatively small locationally or industrial space - what Penrose terms the interstices in the economy.

7. Without some form of differentiation it is hard to explain the continued survival of many small firms in competition with the larger conglomerates. Small firms, therefore, tend to be innovative in order to maintain sufficient product or process differentiation to justify survival. The great majority of such innovations, however, are unlikely to represent a significant technical breakthrough or revolutionary design, but tend to be very marginal changes on existing design or method of production. Indeed the 'innovation' may just be a personal touch to business negotiations or marketing. In effect the innovation role of small firms may be largely intangible and could simply represent an increase in the level of goodwill of the business.

8. Bannock (1981) argues that small firms may be the least costly way of allowing the economy to adopt to bouts of structural change. In particular there are fewer political repercussions at the closure of small firms than of large concerns. In certain cases it is possible to envisage a position in which the growth of employment in small or new firms is directly at the expense of employment in larger firms. The benefit of small firms cannot, therefore, be measured solely by the net addition to jobs since the considerable variations in the fortunes of small firms to allow a more continuous adoption of new methods, better working practices and even to increase the effective mobility of labour that would otherwise be the case. It may be that the small firm increases the ability of the economy to adopt to structural change.

9. Small firms may be more productivity efficient than larger firms. Liebenstein (1966 and 1975) argues that members of an organisation will not have a single productive capacity per unit of time, but the productivity will depend largely on the effort devoted within that time. Furthermore, he argues that the effort made will depend on the motivation of individuals or groups of individuals. This motivation is related to the expected reward or return, to the degree to which the individual is

supervised (and thus, his ability to slack) and to the degree of certainty with which he views his own job within the organisation.

In a small firm then the effect of any individual's effort can more easily be identified than in larger concerns. Moreover, the lack of effort can be seen to effect the likelihood of the firm failing, allied to this the fact that the individual may feel a more significant responsibility and loyalty to the small firm owners with whom he has personal everyday contact. The result of all these influences may cause an individual to devote more effort to his work in a small firm than if he was doing an equivalent job in a larger organisation. Thus, the competitive pressure on the small firm results in each labour unit being more productive (given the same capital equipment) than it would be in a 'safe' larger or more mature firm.

Given the potential importance of the role of small firms in general to economic life, then the new firm should be seen as a special case. The birth of a firm is an event that facilitates and enhances the role of the small firm previously outlined.

To economic theory the role of the business start-up is a vitally important one. The competitive elements of the classic structures of traditional economic theory are derived from the extent to which firms are barred from entering into competition with other firms.

In traditional economic theory the theory of new firm formation is included in the formal model of perfect competition. Consider an industry which conforms exactly with all the restrictive assumptions of perfect competition. The industry is in long run equilibrium when each firm is maximising its profits, but these profits are exclusively 'normal profits' (formally $P = MR = MC = AC$).

Consider now an increased demand for the industry's product. This causes prices to adjust upwards until the new higher level of demand equates with supply. The new price, however, is a short run phenomenon and all firms in the industry will be reaping profits which are significantly above normal profits.

Entrepreneurs will be attracted to enter this industry and they will do so until the abnormal profits of all firms have been totally eroded. In other words the mechanism of adjustment in a perfectly competitive world is the formation of new firms which cause an expansion in industry wide supply. Incidentally, the output of existing firms in the market place actually falls (despite the shortages). The most important assumption in this context is the absence of barriers to entry and, therefore, demand changes will provoke a quantity response in terms of new firm formation or firm failure. The new firm, therefore, has a highly important role in economic theory since it is the mechanism by which markets adjust from one position of static equilibrium to another.

The central place of the new firm in economic theory is not only confined to the models of perfect competition. For imperfectly competitive markets actual or potential entry of new ventures may significantly influence the price and output decisions of existing firms.

Bain (1949) first concentrated attention on new firms in their role as potential competition. He showed that unless theory was modified to include this potential threat of entry, then it would be unable to explain how many firms were observed to be producing at a level where marginal revenue was actually negative. Bain further argued that the existence of various barriers to entry would ensure that existing firms set a price which was above their perfectly competitive level, i.e. above the long run average cost curve.

The importance of barriers to entry will be described in detail in Chapters 6 and 8, but perhaps the most important point to make here is that both the models of perfect and imperfect competition assume that the decision on the part of the entrepreneur to enter any particular market is based solely on his overriding objective - that of profit maximisation. In other words, it is assumed that there is

an abundance of entrepreneurial talent and that this 'factor' will move into that industry (or competition) which offers the highest net advantage - in much the same way as other factors of production, land, labour or capital. Moreover, this reallocation of entrepreneurial talent amongst various possible alternatives is wholly outside the control of any rational individual. Thus, the rate of new firm formation is determined largely by the demand for new firms which is signalled by the rate of profit in individual industries[1]. Despite this basic insight, research has increasingly drawn attention to the supply side factors of entrepreneurship almost to the point of neglect of any role for the demand for new firms.

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1 Mansfield (1962) tested this hypothesis and despite data problems (see Storey (1982) pp.62-63) found that entry rates were higher when profits in particular industries were rising.

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CHAPTER 2

THE SURVEY: METHODOLOGY AND DATA SOURCES

In order to study the start-up stage, it is necessary to analyse the events and attitudes of those involved leading up to, during and immediately after, this stage. More specifically the research is aimed at identifying the important elements of newly formed businesses in the following categories:-

1. Characteristics of new firm founders such as age, education and previous employment history, these identify some of the important characteristics leading up to the actual start-up stage and include the motivations of new firm founders.

2. Aspects of the start-up stage itself, such as finance, location, markets, competitors, problems, attitudes (perceptions), employment and pricing practices.

3. Aspects of early (infant) development, such as growth, changes in markets, methods, organisation, problems and attitudes and pricing practices.

These three categories are obviously related and the nature of this inter-dependence will be analysed, moreover they must be viewed in the context of the economic sub-environment of which they are (or potentially are) a part.

Given the need for data on each of the categories outlined above and of relating these to the industrial structure of the Welsh economy and its sub-regions, this chapter describes the methods used to obtain this information.

Industrial Database (SWISS)

New firms in S. Wales are born into a very particular commercial and industrial environment. It can be argued that this industrial structure has major influences on the decision to start-up (both supply and demand factors) and that new firms modify the regional industrial structure, if only at the margin.

The study of business start-ups in S. Wales, therefore, would be greatly aided by the availability of detailed information of the industrial and commercial structure of the region and its sub-regions.

It is the absence of such detailed information that has plagued research into the small business sector of most regions of the UK and for the economy as a whole. For S. Wales the most comprehensive statistics are the Employment Records II Census (known as ERII's), which are local employment accounts of the Department of Employment. The ERII's provide employment figures for each 3 digit minimum list heading (MLH) by employment area.

The ERII's however, give no indication of the size distribution of firms or even the number of firms within each industrial order. In order to derive such information it was necessary to look for alternative sources.

Market research and credit rating companies have been used widely by researchers as sources of large databases of firms (Birch 1979, Gallager and Stewart 1984). However, those available as regional or county breakdowns for Wales only provide size distributions of firms classified as size bands and there are no corresponding employment figures (e.g. Market Location Ltd. 1982).

Potentially the most lucrative source of information on the industrial structure of S. Wales is an establishment database kept by Mid Glamorgan County Council's Industrial Development Unit, who operate the 'Industrial Information Service' (INDIS).

The INDIS database has records from 1978 onwards and holds business names, addresses, postcodes, description of activity, MLH's and employment data. The main aim of the industrial information service is to promote intra regional import substitution and therefore the main use of the database is in providing an industrial product directory and excess capacity register of firms in S. Wales. However, because these are the main uses of the database it is not possible to tabulate the data or do any form of numeric analysis.

For the purpose of this study it was decided, despite the significant effort needed, to transfer all the manufacturing establishment records from the INDIS computer to our own database (SWISS). During this process inconsistencies and incomplete establishment records were identified and subsequently amended.

The complete database SWISS contains details of 1,948 establishments accounting for almost 110,000 employees in South Wales. The database is named SWISS which stands for South Wales Industrial Structure Statistics.

Last updated in January 1986, SWISS covers the manufacturing sectors of Mid Glamorgan, West Glamorgan, South Glamorgan and Dyfed. (Unfortunately, the source database (INDIS) does not cover Gwent, the only other county in industrial S. Wales). For each of these counties, records of employees (exact number not size band), MLH, ownership status and an establishment code are kept.

It is possible to interrogate SWISS to provide a detailed industrial size distribution of firms for each of the four counties and in total. (This is provided in a series of tables in Appendix I).

The characteristics of new firm formation and development will be analysed in the context of this data on the size distribution of manufacturing firms and attempts will be made to relate both the supply of, and the demand for, new firms to particular characteristics of the Welsh industrial structure.

Most major surveys of the small business and start-up sector have to rely heavily on questionnaire survey methods (Bolton 1971, Huisman & Ridder 1984, Cross 1981, Gudgin et al 1979, Masson 1982). This is because even the most basic information (such as registration of business names) is not available, let alone the very detailed data required for a comprehensive study.

The present study is made up of three types of interviews. Interviews with banks, enterprise agencies and with newly formed businesses. The first two were conducted before

designing the questionnaire or developing the sampling process for the major series of interviews with business start-ups in S. Wales.

Bank Interviews

Before embarking on the major interview survey of business start-ups, it was decided to approach the major clearing banks in an attempt to:-

a) Judge what type of financial information could be obtained from this source and what internal statistics or reports we may be allowed access to.

b) Assess the importance and mechanics of the small firms loan guarantee scheme.

c) Assess the attitudes of senior bankers to small business loans and the general criteria adopted by individual banks.

In order to accomplish these aims, an initial contact was made by telephone and then a letter introducing the survey was sent to the Regional Directors of local Head Offices. The letters included a list of questions requiring statistical answers and pre-interview briefings. Finally, the bankers were interviewed, and questions were ordered into three parts: general, statistics available and small firm loan guarantee scheme.

It is worth noting here that none of the major clearing banks actually keep records based on the size of firm to which finance is extended. It is unlikely therefore that banks have anything other than a subjective estimate of the riskiness of investments to different sizes of companies or for that matter to start-up situations.

The Wilson Committee (1979) suggested that there are potentially viable small businesses unable to obtain finance because bankers are excessively risk averse. It is clear, however, that without a detailed breakdown of accounts by firm size, even the banks themselves cannot accurately forecast the riskiness of small business investments.

Interviews with Enterprise Agencies

Enterprise Agencies were set up with the aims of marshalling the resources of the community to create an environment favourable to business enterprise, in particular, New Small Businesses.

Enterprise Agencies can be seen to perform a number of functions among which are:-

a) Provision of free general advice and signposting (to where additional help is available) to individuals wishing to set up their own business (or those running businesses with specific problems to overcome).

b) Preparation of business plans, financial forecasts, (possibly including central office services).

c) Advice and assistance in location of premises.

d) Marketing and market research advice.

e) Advice on legal and taxation matters.

f) Coordination of various 'training' programmes at local level.

In these respects the Enterprise Agency movement must be seen as a very significant aid to new firm formation (largely as a result of reducing the many frictions involved in the start-up process).

Clearly then any study of the start-up process would have to analyse the role and effect of Enterprise Agencies in this context. In order to do this contact was made with the six established Enterprise Agencies in S. Wales, namely:-

a) Newport Enterprise Agency (NEA)

b) Cardiff and Vale Enterprise (CAVE)

c) Neath Development Partnership (NDP)

d) Merthyr & Aberdare Development of Enterprise (MADE)

e) West Glamorgan Enterprise Trust (WGET)

f) Llanelli Enterprise Agency (LEA)

Interviews with representatives of each establishment were conducted with the aims of:-

a) Establishing the records kept and the extent to which we would be allowed access to them.

b) Obtaining lists of a representative sample of clients.

c) Obtaining inside views/initiatives towards the various aspects of the Enterprise Agency structure, role and effects.

d) Obtaining relevant internal reports.

All expressed interest in the project and cooperated fully to allow us access to their client lists.

The precise effects of Enterprise Agencies on the start-up process will be discussed in detail in Chapter 9, using results of interviews, both with the agencies themselves and those of their clients.

The Questionnaire

After completing interviews with the six enterprise agencies, who each provided a list of business start-ups, the next stage was to design a questionnaire.

It was most important to make the questionnaire as comprehensive as possible and a number of questions were formulated in such a way as to provide reliable and realistic comparisons with major studies published for other UK regions, notably the North East and Scotland. Despite the possibility of interview bias, it was decided to use an interview schedule rather than a mail questionnaire, as the method of data collection. The great advantage of this method is its flexibility and allows a higher response rate for questions within the questionnaire.

In his book 'Questionnaire Design and Attitude Measurement', Oppenheim (1966) states, "There remains the undisputed advantage that the richness and spontaneity of information collected by interviewers is higher than that which a mailed questionnaire can hope to obtain". (p.32)

The section headings of the interview schedule (questionnaire) include:-

a) Characteristics of entrepreneur

b) Finance

c) Support Schemes

d) Description of business, employment

e) Pricing methods

f) Investment

g) Competition

h) Supplies/Sales

i) Marketing

j) Problems encountered

k) Turnover/profitability and growth

See Appendix B - Interview Questionnaire.
In all, over 150 responses were required of each interviewee.

The aspects of good questionnaire design require considerable skills and great care was taken to word each question consistently across interviews, to avoid leading or ambiguous questions and to measure the extent of respondent knowledge without prompting (and before any prompted knowledge was measured).

A number of the studies previously mentioned used questionnaires consisting almost entirely of 'closed' questions, effectively a list of expected or possible answers. Such an approach is useful due to:- (a) ease of

handling results; (b) ensuring consistency for comparisons; (c) jogging the memory of the respondents.

The disadvantage of this approach is the loss of expressiveness and spontaneity, it may not record what a respondent really thinks because it forces him to chose betwen given alternatives. Thus, despite the difficulty of analysis and indeed of recording responses in the field, a number of questions were left as 'open' as possible (free answers). These can be seen in Appendix B, but some of the questions which require open answers include:-

a) How did you determine the price at which you sold your products when you first started trading?

b) How do you determine your prices now?

c) How did your competition react to you setting up your business?

d) List any problems in obtaining outside finance.

e) What limits your production? - If you try to expand output what will constrain you first of all?

The most significant problem encountered when using open questions is the time and effort required to classify all the responses i.e. coding. It is inevitably slow and a good deal of interpretation of responses is required. In fact it was tempting to start designing coding frames as soon as the first few interviews were complete, but in order to reduce risk of bias and preconceived responses, the coding process was only started after the last interview of the survey was completed.

The coding frames processed in this manner are given in Appendix C, but it must be noted that the order of the coding is unimportant and most categories are quite independent of one another. The extensive use of these open (free answers) questions is made largely in recognition of the warning given by Wildsmith (1984) who writes, "This is fine provided that economists do not decide what the answers are before they begin asking the questions".

The Survey

The six enterprise agencies provided over 150 contacts. This list was then divided into two groups.

a) Those businesses who approached the enterprise agencies in order to start-up.

b) Those businesses who approached the enterprise agencies, but were already established before the approach. However, in this case all firms should not be more than 5 years old.

This approach was adopted for a number of reasons, the obvious one is that of data availability. As a result of legislation in 1982 to remove the need for Registration of Business names (except that for Limited companies), the identification of businesses which had started up in the last few years was made considerably more difficult. The lists of clients kept by enterprise agencies was an obvious way around this problem.

However, any survey of business start-up which relied only on those businesses actually using the services of enterprise agencies at the start-up would certainly not be a representative sample. In order to reduce the risk of any significant bias in results, those firms which had started up without the advice of enterprise agencies would also have to be analysed. To do this the agencies were asked to identify those firms which they did not actually help start, but those they have had contact with since, for some reason or another.

This approach, therefore, not only short-cuts the administrative problem of actually making contact with the firms, but also allows comparisons to be made between the two effective sub-samples (a) and (b). That is, to test the hypothesis that there is a significant difference in the start-up process of firms taking advice from enterprise agencies, to those that do not. Furthermore, the differences, if any, can be traced through individual characteristics such as finance, attitudes to public bodies, pricing methods, location, size and profitability.

The list of clients provided by the enterprise agencies was based on a representative sample of their clients (during the last year). This list was subjected to a random selection process, however, since most previous studies had concentrated on the manufacturing sector only, it was necessary (to maintain realistic comparisons) to limit the number of non-manufacturing firms to about a third of all interviews.

Having compiled a sample questionnaire, a pilot survey of some 10 new firms was undertaken. As a result of the learning process inherent at such an early stage, the questionnaire was modified slightly and the method of initial contact and development to the interview stage was developed.

At first, telephone contact was made with the prospective interviewees, they were then vetted to ensure that they were 'new firms' and that contact was actually with the owner/entrepreneur personally. Those who agreed to be interviewed were then sent letters explaining the purpose of the study and confirming the time and date of the interview. Each person was then visited at their business premises.

Of the 72 firms initially contacted by telephone, 61 agreed to be interviewed, a success rate of almost 85%. The average length of time spent over the questionnaire/interview stage was 1 hour 17 mins. (with the shortest being 45 mins. and the longest almost 3 hours). Whenever possible, after completing the interview, a brief tour of the firm's operation was undertaken.

This process was extremely time consuming, but in all just over 60 interviews were made and after rejecting 4 of these (because they did not meet the criteria adopted), a total of 57 usable questionnaires were collected and ready for processing and analysis. These new firms participating in our survey were spread geographically, such that some 15 were located in the Merthyr borough, 4 in the Neath valley, 6 in Newport and South Gwent, 9 in Llanelli and South East Dyfed, another 9 in Swansea and West Glamorgan and 13 in Cardiff and the Vale of Glamorgan.

26 of the firms interviewed actually contacted an enterprise agency in order to start-up. The remaining 31 had recently set up, but without the help and/or advice of an enterprise agency.

Table 2.1 shows the age of the new firms at the interview stage.

Table 2.1 Age of business at time of interview

Age of Firms	Number of Interviews
Less than 6 months	9
6 months - 1 year	11
1 - 1½ years	10
1½ - 2 years	10
2 - 3 years	5
3 - 5 years	12

Source: Survey (South Wales, 1985)

The final sample was based on a random selection of a representative list of enterprise agencies clients and the sectorial breakdown of the sample is given in Table 2.2.

Table 2.2 Businesses Interviewed in the Survey by Type of Business and By Sex of New Firm Founders

Type of Business	Founders		
	Male	Female	All
Mechanical Engineering	9	-	9
Other metal goods	7	-	7
Textiles & other manfg.	8	2	10
Printing/Paper	3	2	5
Wooden articles	6	2	8
Other services*	8	2	10
Business services	4	4	8
All	45	12	57

Source: Survey (South Wales, 1985)

The seven business sectors described in Table 3.2 are fairly well defined and will be used extensively in this research. In terms of the Standard Industrial Classification (Revised 1980) they can be defined as follows:-

1. Mechanical Engineering : (MLH) 320-329

2. Other Metal Goods : (MLH) 311-316, 330-374

3. Textiles & Other Mfg. : (MLH) 411-456, 481-495

4. Printing/Paper : (MLH) 471-475

5. Wooden Articles : (MLH) 461-467

6. Other Services : (MLH) 921-950, 723, 671-673, 611-619

7. Business Services : (MLH) 831-840

In order to make maximum use of the data collected in terms of cross referencing and correlation analysis, it was decided to use a computer database, (DBase III).

However, in order to do this many of the questions, which were 'open ended' and required varied responses, had to be classified into a meaningful index system. This was carried out by a manual sort of all the questionnaires for each 'open ended' answer. The resulting list of answers were then grouped and classified and then given a code which was subsequently transferred onto the computer with the relevant questionnaire. (Appendix C shows the classification of 'open' responses).

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CHAPTER 3

THE SMALL FIRM ECONOMY IN WALES
THE EFFICIENCY OF THE WELSH ECONOMY AS AN INCUBATOR FOR NEW FIRM FORMATION

The purpose of this chapter is threefold, first to explain the potential relevance of the industrial structure and broader economic climate of a region to the numbers and types of new firms founded. Secondly, to identify the main structural characteristics of the Welsh economy, recent trends in sectorial employment and unemployment and in particular, the importance of the small firm economy in Wales. Thirdly, a review of the available statistics on new firm formation in the region.

All economies, (national, regional or local) can be viewed as incubators for new businesses. However, there are sometimes large differences in the structure of the various economic units and this will lead to variations in the 'climate' of each incubator. If each region of the U.K. has a different 'entrepreneurial climate' then over time it may be hypothesised that ceteris paribus new firms will reveal their preference for a particular climate by exhibiting different rates of new firm formation across regions.

By working back from this hypothesis it would be possible to identify the most efficient 'climate' for new firm formation simply by analysing the particular industrial social and economic environment of the region with the highest rate of new firm formation. In fact during 1981 and 1982 the South East and South West of England had the highest number of new business set- ups per thousand of working population. (Ganguly 1982). According to this revealed preference hypothesis, the South of England must have a climate of incubation more conductive to new firm formation than other regions of the U.K.

In practice, research in this field has concentrated on disaggregating the 'climate of incubation' into a number of elements. At this stage it is necessary to review briefly some of the most important relationships between new firm formation and regional 'climate' that have been suggested.

1. Incubator Hypothesis

The larger the workforce employed in small firms the higher the rate of business start-up. Conversely, the higher the proportion of the labourforce in large firms the lower the rate of new firm formation. (Fothergill & Gudgin 1979), (Storey 1981), (Johnson & Cathcart 1979), (Cross 1981) and (Whittington 1983).

2. Intra-Industry Birth

An area with a relatively large workforce in one particular industry will have relatively more new firms founded in that type of activity than would other regions (Storey 1981, (Johnson & Cathcart 1979), (Cross 1981).

3. Type of Employment

The higher the proportion of the workforce in non-manual occupations the higher the rate of new firm formation. (Gould & Keeble 1983), (Fothergill & Gudgin 1983) and (Whittington 1983).

4. Diversity of Industrial Base

The more diverse the local manufacturing industry the higher the rate of business start-up and conversely the greater the dependence upon one industry or narrow group of industries, the lower the rate of business start-up. (Cross 1981).

These postulates will be analysed in the context of the present survey of business start-ups in Wales, but for this section they should be taken as broad generalisations to aid understanding of the structural characteristics of the Welsh regional economy.

The most comprehensive synthesis of these postulates was undertaken by Storey (1982), p.183-202. He identified high levels of entrepreneurship as being associated with

(a) small incubator firms; (b) managerial experience; (c) higher education; (d) easy access to capital; (e) low entry to barriers; and (f) high levels of disposable incomes. Storey then combines these into a simple index of regional entrepreneurship for Great Britain. Table 4.1 reproduces Storey's index.

The resultant index is an unweighted average of rankings and should not be used as anything other than a very general picture of 'climate' of incubation. However, the rankings of the elements making up the index of entrepreneurship provide a useful basis for making regional comparisons.

Table 3.1 shows that Wales is thought to be relatively inefficient as an incubation 'climate' for most of the elements of the index, except education, (i.e. the percentage taking degree courses, where it is the highest in Britain) and barriers to entry.

Compared to Britain as a whole, Wales is deficient as an entrepreneurial incubator climate (i.e. having a low ranking), in the following:-

i) The proportion of employment in small manufacturing firms.

ii) Percentage of school leavers without qualifications.

iii) Percentage of workforce in managerial positions.

iv) Low savings per head.

v) Prices of houses.

vi) Disposable incomes.

Overall, only the Northern region has a lower average score on the index than Wales. Both the South West and South East regions have average scores which are more than double the score for Wales.

Table 3.1

An Index of Entrepreneurship in the Regions of Britain

(Figures are rankings)

Region	% in small mfg. plants	% in large mfg. plants	% going to degree courses	% without qualifications	% in Admin & Managerial Class	% in Manual Class	Savings	owner-occupied dwellings	Average dwelling price	Barriers to Entry	Disposable Income	Average Score
Northern	2	1	2	7	4=	2	8	1	5	1	5	3.45
Yorks. & Humberside	7	8=	6	4	4=	1	5	2	1	4	9	4.64
E. Midlands	6	10	3=	6	8	3	10	5	2	6	6	6.09
E. Anglia	8=	8=	1	8	7	9	4	6	6	11	8	6.91
South East	11	7	8	10	11	11	7	4	11	10	11	9.18
South West	10	6	5	9	6	10	9	8	8	8	4	7.64
W. Midlands	3=	3	3=	3	9	4	6	3	7	9	10	5.27
North West	5	4	7	5	10	6	11	7	3	7	7	6.64
Wales	3=	2	10	1	2	7	3	n.a.	4	8	3	3.70
Scotland	8=	5	9	n.a.	3	5	2	n.a.	9	3	2	5.11
N. Ireland	1	11	n.a.	2	1	8	1	n.a.	10	5	1	4.44

Note: Equals sign indicates equal ranking of a region.

Source: Storey D.J. Entrepreneurship and the New Firm, 1982, Table 10.17.

In a more general context it is this index of entrepreneurship that leads Storey to write -

> "A policy of assisting the small (at the expense of the large) firm risks being regionally divisive, since the biggest take up rates are in the areas which are currently the most prosperous".
>
> Storey (1981) p.115

Having briefly identified some of the main relationships thought to exist between industrial structure and new firm formation, it is necessary to describe the economic background to the survey of new firm formation in Wales. These will be discussed under the following headings:-

a) Industrial distribution of employment.
b) Employment change by industry.
c) Unemployment and firm formation.
d) Size distribution of employment units.
e) Wage differentials.
f) Risk aversion.

A. Industrial Distribution of Employment in the Welsh Economy

This section does not set out to be a comprehensive historical account of trends in, and phases of, industrial development in Wales. However, it is important to highlight some of the main features of recent economic trends in order to aid the understanding of observed business start-ups (both in number and type).

In 1972 Humphrys wrote -

> "Two hundred years of industrial development in S. Wales have given the region a character and homogeneity which still clearly distinguishes it from surrounding areas ..... the simple industrial structure (pre 1970) gave all parts of the region a common economic base in coal and steel and created among the people of the region a solidarity based upon shared work experiences in addition to common cultural, social and religious ties".
> G. Humphrys (1972) p.11-12.

The extent to which this character homogeneity and solidarity of the region has been modified by the subsequent (post 1970) decline in production industries is a matter of debate and may have important implications for entrepreneurship in the region. However, the first task is to compare the industrial structure of Wales with that of other regions of the U.K. in order to identify any important structural differences. For this purpose Table 3.2 gives the industrial distribution of employees in employment for Wales and the regions of the U.K. during 1981. The dependence on manufacturing industries in Wales shows two extremes, firstly Wales has the lowest proportion of employment in 'other manufacturing' industries than any other region of the U.K. Indeed the Welsh economy is only about half as dependent on this sector as the East Midlands or even Northern Ireland. At the other extreme metal manufacture and chemical industries account for a larger percentage of employment in Wales than all regions except the North.

In the service sector only East Anglia has a lower dependence than Wales on banking, finance and business services. The largest single sector is public administration and 'other services' accounting for almost a third of the total employment in Wales.

In general the employment structure of the Welsh economy is not particularly unique, but the differences identified above may have significant implications for overall rates of new firm formation. For example, the intra-industry birth hypothesis stated at the beginning of this chapter, would predict that the higher percentage of employment in metal and chemical industries in Wales would lead to a relatively larger number of new businesses setting up in this sector than in most other regions of the U.K. However, the metal manufacture and chemical industries are associated because of high capital requirements with very high barriers to entry and to the extent that these barriers prevent new entry, Wales will be losing out on overall new firm formation rates, rather like sowing seeds on rocky ground. On the other hand those sectors with less significant barriers to entry such as business services or 'other manufacturing' (food, printing, woodworking, etc) are those in which the Welsh economy would not be as efficient at incubating entrepreneurs as other regions of the country. Again these structural

Table 3.2 INDUSTRIAL DISTRIBUTION OF EMPLOYERS IN EMPLOYMENT BY REGION OF U.K. 1981

Percentages

REGION	AGRICULTURE	ENERGY & WATER	METALS & CHEMICALS	METAL GOODS ENGINEERING	OTHER MANUFACTURING	CONSTRUCTION	DISTRIBUTION	TRANSPORT & COMMUNICATION	BANKING BUSINESS SERVICES	PUBLIC ADMINISTRATION	EMPLOYEES (000's) ALL
NORTH	1.3	6.0	7.3	13.6	9.4	6.0	18.8	5.5	5.3	26.7	1,119
YORK & HUMBERSIDE	1.7	6.3	6.6	11.2	13.6	5.1	18.8	5.7	5.8	25.2	1,843
EAST MIDLANDS	2.4	6.3	4.4	14.5	17.5	4.4	17.2	5.0	5.2	23.1	1,467
EAST ANGLIA	6.1	1.7	2.7	11.6	13.0	5.5	19.9	6.5	6.6	26.3	681
SOUTH EAST	1.1	1.7	2.6	12.0	8.6	4.7	19.9	8.4	11.8	29.2	7,244
SOUTH WEST	3.3	1.9	2.7	13.0	9.9	5.2	22.6	5.6	7.5	28.3	1,546
WEST MIDLANDS	1.6	2.7	6.5	24.1	8.8	4.5	17.3	4.4	6.1	24.0	2,033
NORTH WEST	0.7	2.6	5.2	13.7	13.6	4.9	18.8	6.3	6.9	27.1	2,454
ENGLAND	1.6	3.1	4.2	13.9	10.8	4.9	19.3	6.6	8.4	27.1	18,387
WALES	2.6	6.3	7.1	10.5	7.8	5.6	17.5	5.7	5.3	31.5	937
SCOTLAND	2.2	3.7	3.3	10.6	11.3	7.0	19.3	6.3	6.5	29.7	1,991
NORTHERN IRELAND	1.8	2.1	2.4	8.3	14.0	5.3	15.5	4.1	5.3	41.2	485
U.K.	1.7	3.2	4.2	13.3	10.8	5.1	19.1	6.5	8.1	27.8	21,799

Source: Central Statistics Office, Regional Trends 1984, Table 7.5.

Table 3.3 NET CHANGE IN WELSH EMPLOYMENT BY INDUSTRY 1977-1981

SIC 1968	(No.s 1000s) 1977	(No.s 1000s) 1981	% 1981	1977-1981 NET CHANGE
AGRICULTURE	23.9	22.3	(2.4)	-1.6
MINING & QUARRYING	41.0	22.3	(3.8	-5.6
FOOD, DRINK & TOBACCO	18.5	18.8	(2.0)	+0.3
COAL & PETROLEUM PRODUCTS	5.3	5.4	(0.6)	+0.1
CHEMICALS & ALLIED INDUSTRIES	18.0	16.0	(1.7)	-2.0
METAL MANUFACTURE	80.3	38.9	(4.2)	-14.2
MECHANICAL ENGINEERING	26.5	21.8	(2.4)	-4.7
INSTRUMENT ENGINEERING	3.5	3.1	0.3)	-0.4
ELECTRICAL ENGINEERING	31.9	28.5	(3.1)	-3.4
SHIP BUILDING & MARINE ENGINEERING	0.8	1.1	(0.1)	+0.3
VEHICLES	23.4	27.3	(2.9)	+3.9
METAL GOODS NOT ELSEWHERE SPECFD.	21.5	14.5	(1.6)	-7.0
TEXTILES	12.7	8.9	(1.0)	-3.8
LEATHER GOODS & FUR	0.8	0.7	(0.01)	-0.1
CLOTHING & FOOTWEAR	15.7	10.6	(1.1)	-5.1
BRICKS, POTTERY, CEMENT ETC.	9.0	8.3	(0.9)	-0.7
TIMBER, FURNITURE ETC.	8.2	8.0	(0.8)	-0.2
PAPER, PRINTING & PUBLISHING	11.9	11.5	(1.2)	-0.4
OTHER MANUFACTURING INDUSTRIES	21.1	14.5	(1.6)	-6.6
CONSTRUCTION	64.4	55.4	(6.0)	-9.0
ALL MAN	309.3	237.9	(25.7)	-71.4
GAS, ELECTRICITY & WATER	19.3	19.9	(2.1)	-0.6
TRANSPORT & COMMUNICATION	57.6	54.4	(5.9)	-3.2
DISTRIBUTIVE TRADES	102.3	98.8	(10.7)	-2.5
INSURANCE, BANKING, FINANCE ETC.	26.6	31.4	(3.4)	+5.8
PROFESSIONAL SERVICES	167.3	176.8	(19.1)	+9.5
MISCELLANEOUS SERVICES	102.7	110.3	(11.9)	+7.4
PUBLIC ADMINISTRATION	83.6	82.5	(8.9)	-1.1
SERVICE INDUSTRIES	540.2	555.3	(59.9)	+15.1
TOTAL	997.8	927.2	(100%)	-70.6

SOURCE: Welsh Office, Digest of Welsh Statistics 1985.

characteristics may be thought to have important effects on the rate of new firm formation in general.

B. Employment Change by Industry

The late 70's to early 80's was 'the period of incubation' for most of the businesses in our sample survey and a picture of the net change in employment in each industrial order is needed to be analysed in the context of its potential role in new firm formation.

Table 3.3 compares the employment structure of industry in Wales between 1977 and 1981 (based on the Census of Employment). Between this period over 70,000 net jobs were lost to Wales. The pattern of employment change has not been industry neutral with service sector employment actually increasing by 15,000 and manufacturing industries alone suffering a net employment decline of 71,000. It can be seen that only 4 of the 17 manufacturing orders showed any net gain, by far the most significant element in the net change in employment was the continuing decline in metal manufacture which accounted for approximately 60% of the total net employment decline in the Welsh economy - within the period 10,000 net jobs were being lost each year and so by 1981 only 4.2% of employment in Wales was in metal manufacture.

The trends in industrial employment decline outlined above may have significant direct effects on new firm formation, pushing redundant workers into self-employment. There may also be a number of more indirect repercussions as the structural decline could alter the size distribution of firms, the ownership structure (Cross 1981, p.116) and the high churning effect on employment will reduce the stability of regional and local labour markets. These indirect effects will be discussed (in the following chapter) in the context of observed benaviour of new firm founders.

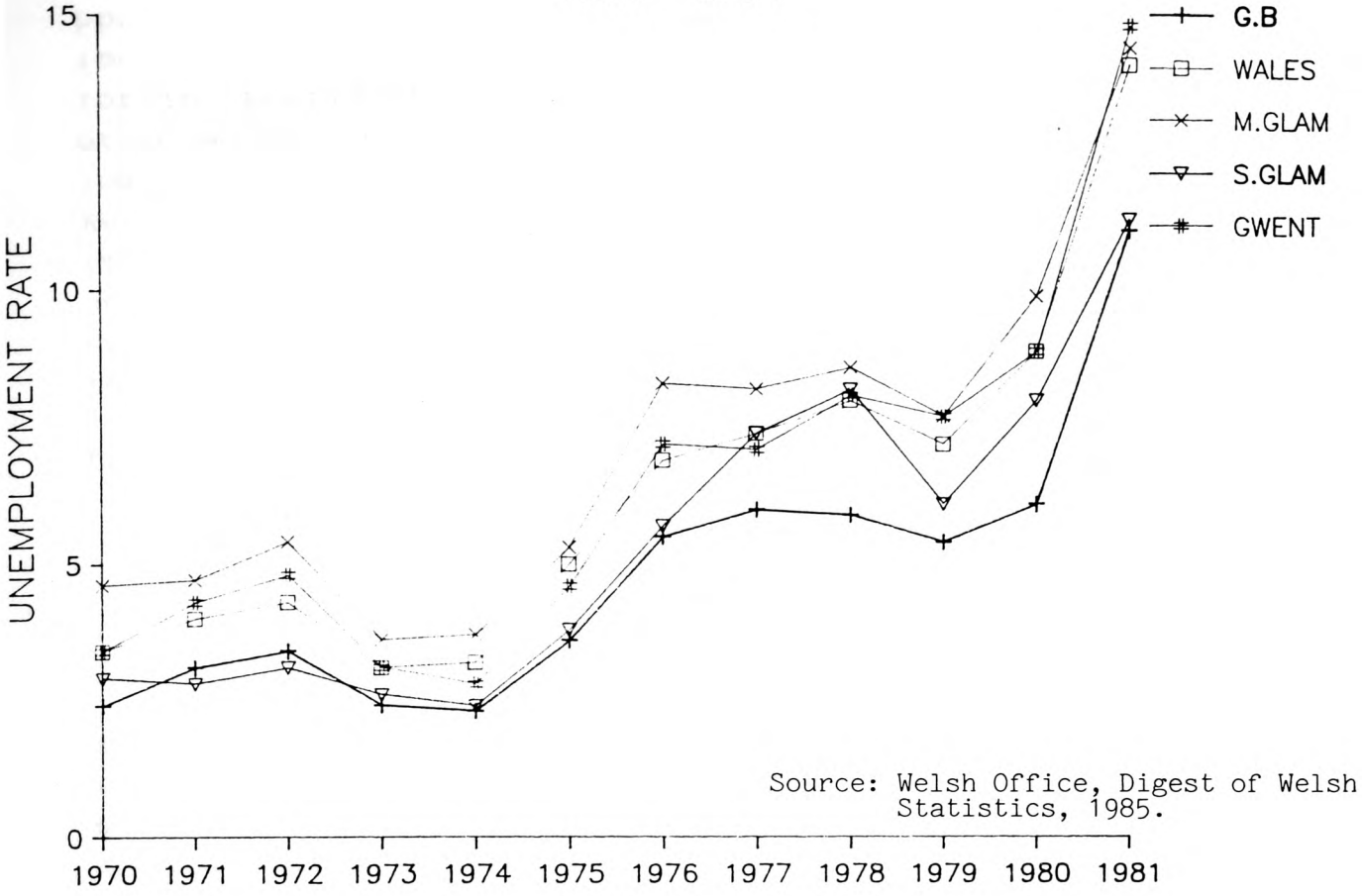
C. Unemployment and Firm Formation

The relationships between entry rates and levels and trends in unemployment is unclear because the effects on new independent firms and on transfers of existing firms

Figure 3.1

UNEMPLOYMENT RATES FOR WALES

1970 –1981

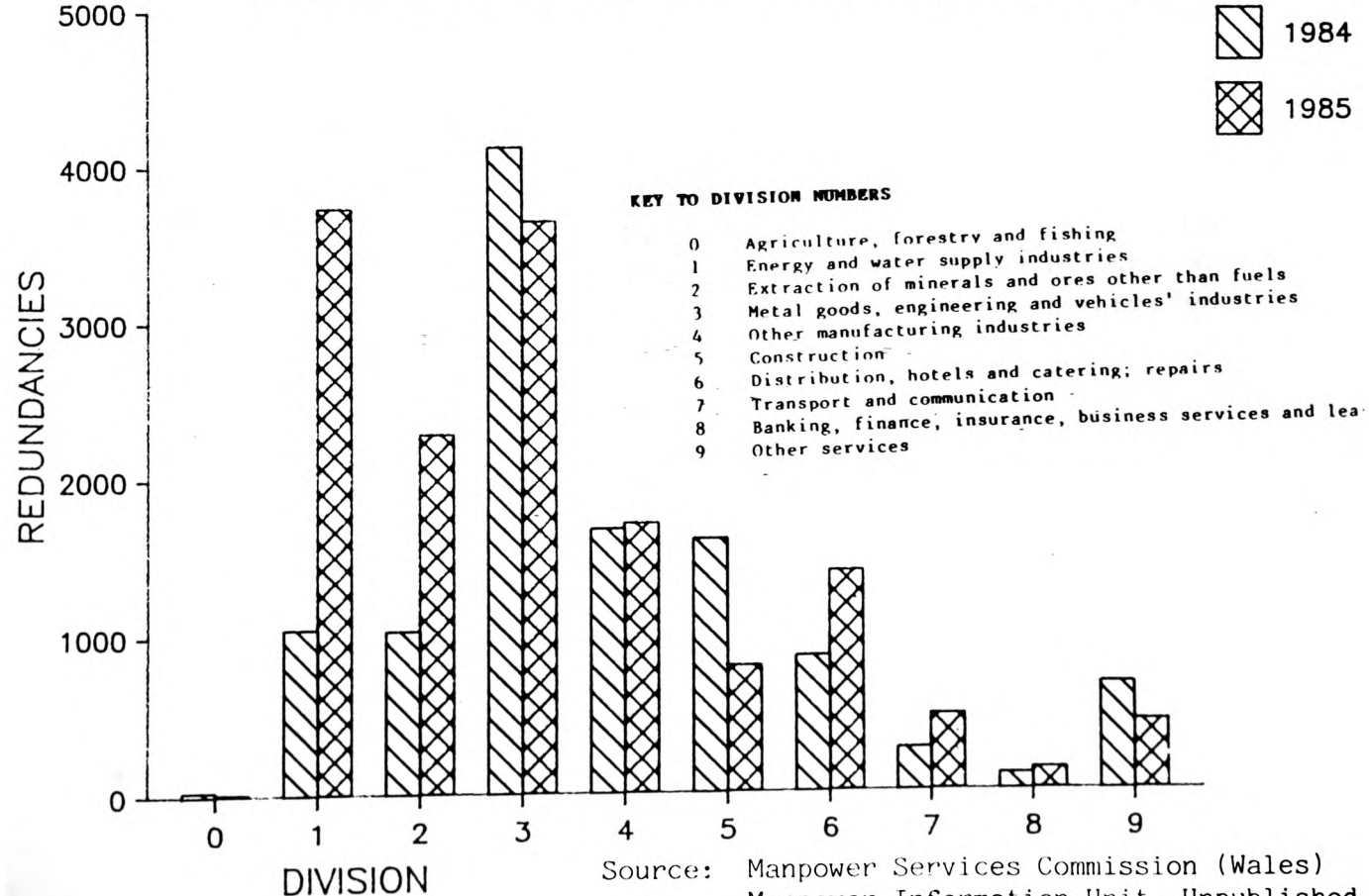


Source: Welsh Office, Digest of Welsh Statistics, 1985.

Figure 3.2

CONFIRMED REDUNDANCIES OCCURRING IN WALES

1984 & 1985 RECORDS BY DIVISION (SIC 1980)



Source: Manpower Services Commission (Wales) Manpower Information Unit, Unpublished.

are likely to work in opposite directions (Storey (1982), pp.72-73). However, there is considerable evidence that increasing unemployment stimulates entrepreneurship by forcing people into setting up their own business. In other words there is a positive relationship between new independent firm formation and unemployment. (Gould and Keeble, 1983; Atkin et al 1983; Fothergill and Gudgin 1982). Whittington (1983), for example, found that lagged unemployment was a significant determinant of rates of firm formation, but that its magnitude made it less important than some other variables.

Storey (1981) quoting Oxenfeldt writes -

> "If an individual is involuntarily unemployed ... and ... if he is able to establish a business, then he requires little inducement to do so". (p.70).

The importance of push factors to the new firms surveyed in this study will be discussed in Chapter 4. At this stage, however, the potential importance of unemployment to start-up rates in Wales can be seen in Figure 3.1. Clearly through the 1970's, Wales has unemployment rates between 1 and 2% above the average for Great Britain as a whole. (Almost every Welsh county has shown higher rates of unemployment over the entire period). The increasing unemployment in the 1980's has, if anything, accentuated this trend. Figure 3.2 shows the sectorial distribution of redundancies in Wales for 1984 and 1985. The high levels of redundancies and rates of unemployment in Wales may, therefore, push significant numbers of people into becoming self employed and indeed, taking into account rates of unemployment alone, one might expect Wales to exhibit high rates of new firm formation that the U.K. as a whole. The picture, however, is obviously complicated by the fact that higher rates of unemployment depress local and regional demand.

D. The Size Distribution of Welsh Business

A number of studies have shown that the size structure of the existing stock of firms is a major determinant of rates of new firm formation. It is necessary, therefore, to examine the size distribution of industry in Wales,

Table 3.4 % Size Distribution of Employment Units by Region of G.B. 1976

Percentage of Employment in Each Size Band

Employment

Region \ Size Group	1-10	11-24	25-49	50-99	100-199	200-499	500-999	1000+
S.East	13.41	11.24	11.02	11.58	12.20	15.06	9.55	15.91
E.Anglia	14.67	11.82	12.10	11.61	11.61	14.75	10.76	12.60
S.West	16.58	13.40	12.65	11.44	12.13	13.44	7.56	12.80
W.Midlands	11.63	9.91	9.53	9.68	10.56	14.66	10.04	23.74
Yorks. & Humberside	12.70	11.23	11.14	11.30	12.37	15.37	9.74	16.16
N.West	11.87	9.44	8.82	9.36	11.34	15.30	9.92	23.93
North	11.80	11.04	10.81	9.82	10.60	14.92	9.73	21.29
Wales	13.78	10.80	9.22	9.73	11.82	15.40	12.25	17.0
Scotland	13.44	11.48	10.98	10.87	11.80	14.50	10.03	16.92
G.B.	13.05	10.95	10.56	10.80	11.71	14.90	9.80	18.24
Max.	16.58	13.40	12.65	11.58	12.37	15.37	12.25	23.93
Min.	11.60	9.44	8.82	9.68	10.56	13.44	9.55	12.60
Difference	5.98	3.96	3.83	1.90	1.81	1.93	2.7	11.33

Source: Department of Employment, Census of Employment Units, Employment Gazette, January 1978, Table 3A.

however, this would be of limit ed use unless we can draw comparisons with other regions of Great Britain.

The data in Table 3.4 is calculated from the Census of Employment units, undertaken by the Department of Employment in June 1976. It shows the size analysis of census units by region based on the number of employees in employment in each size band.

Before interpreting the Table 3.4, it is important to note that the 'census units' on which the table is based are points where employers held pay records and so each census unit may not represent complete firms or workplaces. Despite this difficulty, this data is the only way of making reliable comparisons of size of businesses across the regions of Great Britain.

Scrutiny of Table 3.4 reveals that the size of distribution of employment units in the Welsh economy was not significantly different from that of Great Britain as a whole in 1976 except perhaps in the size band 500-999 where it is ranked first. In fact at this level of aggregation there seems to be relatively little difference in the size distribution of firms across regions. This is particularly the case for the size bands between 50 and 499 employees where the difference between maximum and minimum percentages of employment is less than 2%. The main regional differences that are apparent are in the very smallest, 1-10, the largest 1000+ size bands. Of the former the highest percentage figure for all regions is that for the South West while the lowest dependent on the size band is the East Midlands almost 6% below that for the South West. Of the 1000+ size band, 23.7% of employment in the West Midlands is in the size group, but only 12.6% of East Anglia's employment is in this group. A difference in excess of 11%.

We have seen that the incubator hypothesis is usually formulated so that the differences in new firm formation rates can be explained by the percentage of employment in the smallest firms (1-10 usually) where there is a priori a direct positive relationship and the percentage employment in the larger firms (over 500) where a negative relationship is expected. Since the differences between the size distribution of Wales and Great Britain as a whole are relatively small, then it could be argued that

the rate of new firm formation in the Welsh region will not be significantly different from that of the nation as whole if only the size distribution of industry is considered. Regions like the North West however, will be expected to experience lower rates of new firm formation since they have both a lower proportion of employees working in small units and a significantly higher proportion of employees employed in large units than the average for Great Britain.

There are three shortcomings with the information presented in Table 3.4, firstly it only exists for 1976, secondly it only exists at a regional level and clearly more significant variations in size dominance of particular industries will occur at lower levels of spatial aggregation (particularly at the district level) and thirdly, it is not possible to break down the census data to give a regional size distribution of firms by industry type.

The detailed accounts of the size distribution of manufacturing firms in S. Wales are given in Tables A.1, A.2, A.3, A.4 and A.5 of Appendix A and a summary of the overall distribution of manufacturing units is produced in Table 3.5.

The Small Firm Manufacturing Economy of Wales

The small firm sector, defined by Bolton (1971) as 200 employees or less, accounts for 40% of all manufacturing employment in industrial S. Wales[1]. The small firm economy in West Glamorgan is significantly smaller with only one quarter of total manufacturing employment in firms of less than 200. Conversely the largely rural area of Dyfed is much more dependent on small firm employment.

More significant structural differences are shown in the lower size bands, particularly for businesses employing less than 20 people. In terms of numbers of firms less than 50% of Mid Glamorgan's manufacturing stock is in firms below 20 employees, employing only 5% of

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1 Table 3.5 - Source: SWISS

TABLE 3.5 CUMULATIVE SIZE DISTRIBUTION OF MANUFACTURING INDUSTRY IN S. WALES - JAN. 1986

	Cumulative Percentages by Size Bands							
Size Bands / Area	1-9	1-19	1-49	1-99	1-199	1-499	1-999	All
Dyfed	72.0 / 13.6	83.0 / 20.8	92.6 / 35.0	95.0 / 46.2	97.6 / 60.4	99.3 / 78.3	99.8 / 89.7	100
S. Glam	51.4 / 5.6	69.3 / 11.8	83.7 / 22.9	92.4 / 37.0	95.6 / 47.9	97.9 / 63.8	99.6 / 85.3	100
W. Glam	46.5 / 2.3	66.5 / 5.4	78.4 / 9.5	85.3 / 14.9	91.7 / 25.0	95.0 / 35.0	97.0 / 57.0	100
M. Glam	26.8 / 1.6	48.4 / 5.0	66.9 / 11.9	77.9 / 20.6	90.0 / 40.6	97.7 / 68.2	99.3 / 82.9	100
All	49.5 / 3.7	66.8 / 8.0	80.5 / 15.1	88.0 / 24.0	94.1 / 39.0	97.9 / 60.1	99.4 / 76.3	100

Source: DBase, (See Appendix A, Tables A.2 - A.5.)

Figures in left hand cells are % for number of firms

Figures in right hand cells are % for number of employees

the manufacturing workforce. Compared to South Glamorgan and Dyfed, Mid Glamorgan and West Glamorgan will be expected to have significantly lower rates of business start-ups if the incubator hypothesis previously outlined is correct.

The activities undertaken by new firms will not only depend on the size distribution of firms, but also on the size distribution of firms by industrial sectors. These are displayed in Appendix A along with the ownership status of the manufacturing unit.

The various implications of the industrial structure described above will be discussed in considerably more detail when related to aspects of the start-up process. Before reviewing the importance of new firm employment in Wales, it is necessary to look at another important characteristic of the Welsh economy, wage rates.

E. Implications of Regional Wage Differentials

One aspect of the explanation of variations in new firm formation which has been overlooked in the literature on the subject, is geographical and intertemporal wage differentials.

The hypothesis so far considered have concentrated on the supply of entrepreneurial services which are effected mainly by industrial structure. However, none of the explanations or models in the literature includes differences in earnings between regions or groups, or even overtime.

In fact there are good reasons for including wage differentials in the explanation of variations in new firm formation rates, particularly regional variations. Standard microeconomic theory assumes that each worker or unit of labour has a particular transfer earning (or opportunity cost). If labour, is paid a wage which is below this transfer earning, then in order to maximise his return (net advantage), movement will take place out of this activity and into the next best alternative which will in fact be his transfer earning. The analysis is complicated by differing degrees of labour mobility, both

geographically and occupationally, but the general principle holds.

Knight (1921) effectively used this principle to explain entrepreneurship and extended it to include uncertainty. He assumed that all individuals possess labour which they can supply as workers to a competitive labour market or use that labour as entrepreneurs in setting up and running a firm.

> "The labourer asks what he thinks the entrepreneur will be able to pay and in any case will not accept less than he can get from some other entrepreneur, or by turning entrepreneur himself..... likewise the entrepreneur himself will offer ..... to labour what he thinks must in order to secure his services and in any case not more than he thinks the labourer will actually be worth to him, keeping in mind what he can get by turning labourer himself".
>
> Knight (1921) pp.273-274

In short, entrepreneurship is simply one option in a possibly long list of alternative occupations. Consider now a position in which a labourer is paid a wage which is less than that paid to his counterpart in another region. Realising this discrepancy he may consider relocation or possibly becoming an entrepreneur himself in an attempt to internalise the discrepancy. (Such a decision would obviously have to take into account the residual nature of entrepreneurial return).

The transfer option of entrepreneurship discussed above would be particularly important if the regional differences in relative returns also effected profitability or expected profitability.

Although earnings differentials have not been analysed in other studies, their potential importance, if only in theory, suggests that it is worthwhile considering them in more detail.

Table 3.6 shows the average gross earnings of adult workers in Wales as a percentage of the average earnings in Great Britain as a whole. A number of points emerge: the most striking fact is that not one of the areas of Wales (however defined) has an average earnings greater

Table 3.6 AVERAGE GROSS WEEKLY EARNINGS FOR FULL-TIME ADULTS IN WALES - MALE AND FEMALE, APRIL 1984, (AS A PERCENTAGE OF G.B. AVERAGE)

Statistical Sub-Division	% of G.B. Average Earnings	
	Men	Women
Clwyd	92.6	93.6
Gwynedd	89.1	89.2
West Wales	87.2	95.2
Gwent	91.6	96.1
Mid Glamorgan	92.6	95
South Glamorgan	99.9	96.4
West South Wales	91.7	92.4
Industrial South Wales	94.2	95.1
Industrial Wales	94.4	N/A
Rural Wales	86.9	N/A
Wales	92.7	94.8
Great Britain	100.0	100.0

Source: Welsh Office, Digest of Welsh Statistics No.31, 1985, (Tables 7.21, 7.22, 7.19, 7.20)

than, or even equivalent to, the Great Britian average (although S. Glamorgan has by far the smallest differential).

Rural areas have a particularly low relative earnings, but even the industrialised counties of Gwent and Mid Glamorgan have relative wages almost 10% below the national (G.B.) average, note also women's earnings generally closer to the Great Britian average.

It is tempting to argue that these geographical differentials will lead to higher rates of new firm formation in rural areas and Mid Glamorgan than would be found in S. Glamorgan or the average for Great Britain for that matter. However, the transfer earnings mechanism should be considered when comparing earning differentials across the same industries. Rural areas may have lower wage rates than Great Britain as a whole, simply because they have different industrial characteristics. Unfortunately data on wage differentials across both industries and counties is not available. However, it is possible to get a broad industry type view of wage differentials between Wales and the Great Britain average. See Table 3.7.

In general, wages for manual labour in manufacturing and productive industries is about the same as the average for Great Britain (figures for both 1982 and 1983 show that Wales' earnings were below the national average - they caught up during 1984). Also manual workers in non-manufacturing employment seem to be relatively worse off than their counterparts in manufacturing.

The most important point to make from Table 3.7 is that male non-manual workers were being paid about 9% below the national average for non-manual workers in all activities (this is even lower for non-manufacturing).

Again in each case women's earnings were not so far behind their industrial counterparts in Great Britain as were men. However, the largest wage discrepancies occur in wholesale distribution and construction, where Welsh workers earnings are significantly below the national average by 25% and 13% respectively.

Table 3.7 AVERAGE GROSS WEEKLY EARNINGS - BY INDUSTRY FOR MEN AND WOMEN AT APRIL 1984

(Wales as a percentage of G.B. average)

Industry Type	% of G.B. Average Earnings	
Full Time Manual	Men %	Women %
All services & industries	97.5	100.5
All production industries	100.9	103.9
All manufacturing	102.1	103.9
All non-manufacturing	94.6	96.2
Full Time Non-Manual		
All industries & services	91.9	93.8
All production industries	97.6	99.4
All manufacturing	94.1	102.2
All non-manufacturing	91.5	92.9
Other	Men & Women	
Wholesale distribution	80.1	
Retail distribution	95.5	
Construction	88.9	
Professional & scientific services	96.4	

Source: Welsh Office, Digest of Welsh Statistics No.31, 1985, Table 7.18.

It could be argued, therefore, that (ceteris paribus) the ratio of new firm formation in wholesale distribution and construction will be higher in the Welsh region than in Great Britain as a whole. Furthermore, non-manual employees are more likely to start their own business than their manual worker colleagues in the same industry. This last point has important implications for other studies, notably Fothergill & Gudgin (1983) and Whittington (1983) which show that the proportion of non-manual workers in an area had direct and positive effects on the rate of business start-up, since some of this effect may have been due to regional wage differentials and not simply the proportion of manual to non-manual workforce.

The second effect of low relative wage rates which to some extent works in the opposite direction in terms of fostering an environment conducive to new firm formation, is that other things remaining equal low wage rates also result in lower levels of regional effective demand for products of firms. Although this is less important for manufacturing activities than the service sector.

F. Regional Differences in Risk Aversion and Entrepreneurship

The distribution of firm size in any economy is thought to be a function of the distribution of entrepreneurs with different attitudes towards risk.

Kihlstrom & Laffont (1979) present a mathematical model of risk aversion and entrepreneurial activity. They prove that given specific assumptions those economically active in the economy with high levels of risk aversion will settle to become employees while less risk averse people become entrepreneurs. Furthermore, the less risk averse the entrepreneur the larger the size of firm he will be content with operating.

Working back from this arguement the size distribution of firms in the economy at any particular time should reveal the attitudes to risk of entrepreneurs. Although attitudes to risk aversion is only one of the very many factors thought to influence new firm formation, its importance to theory merits a much more detailed analysis.

However, none of the models reviewed in the literature that are used to explain differences in new firm formation have even considered these attitudes to risk let alone try to incorporate them into the explanation[1].

Regional differences in new firm formation may therefore be related to regional differences in risk aversion. In order to test this hypothesis it would be necessary to assume that the size distribution of firms in a region was an indication of relative risk aversion of the regions entrepreneurs. Thus, a region with a higher % of firms which are large will be indicative of a less risk averse population. By further making the assumption that this large firm size distribution is a proxy for risk aversion and that the proxy variable is constant throughout the population, it is possible to conceptualise a picture shown in Figure 3.3.

Consider two economies (or regions), economy x has risk aversion characteristics shown by the line x-x'. (Note the population of the economy is ranked according to increasing risk aversion). Economy y has risk aversion characteristics which are given by y-y'. (Each person in economy y has a constant (higher) degree of risk aversion by the amount (x-y)).

The line z-z' represents the unconstrained level of risk aversion required before a person becomes an entrepreneur. In economy y (tne risk averse population), the number of entrepreneurs is given by 0-b' (the rest are workers). In economy x, the less risk averse, o-a will be entrepreneurs, i.e. economy x will have a higher rate of new firm formation than economy y.

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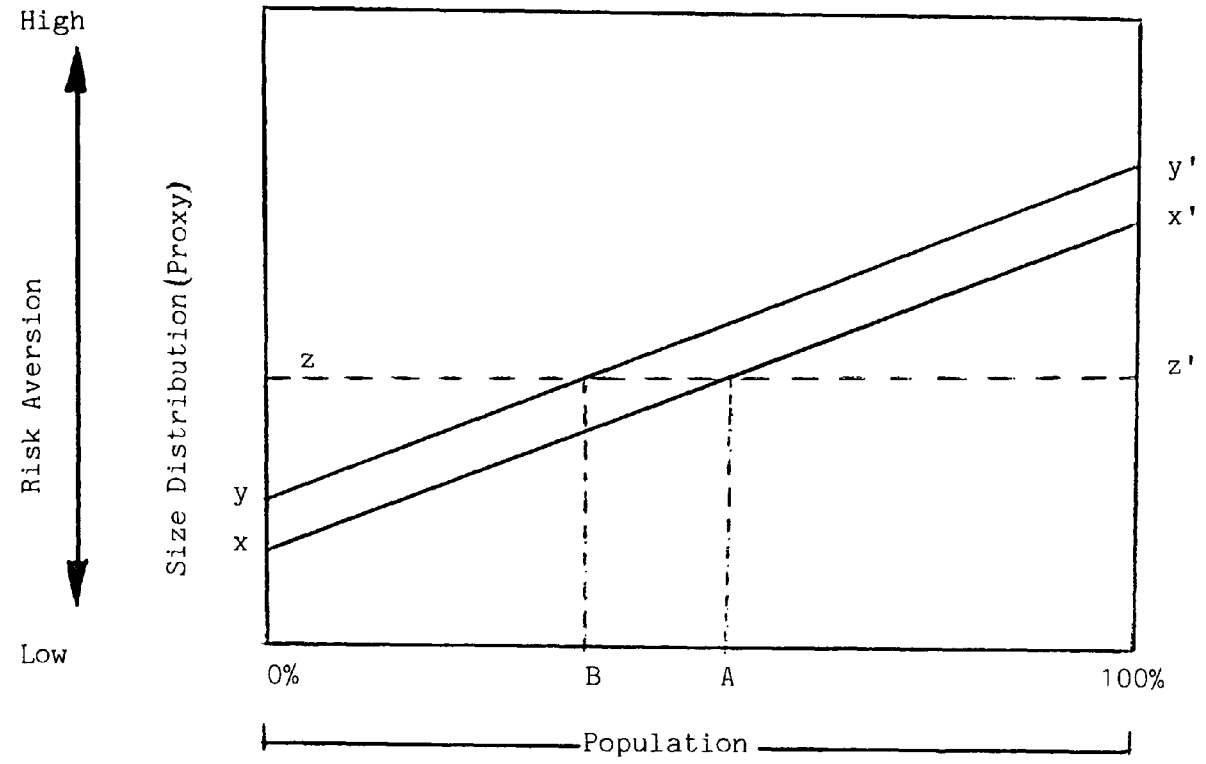
1 A survey carried out by Fortune (1986) shows that the population of Great Britain is not disposed to taking risks, for example, the survey asked - would you be prepared to risk your savings in order to become rich? Less than 30% said Yes and the response was similar when asked - would this risk leaving a secure job?

Figure 3.3 Relationship Between Risk Aversion and Entrepreneurship



This hypothesis is testable provided that risk aversion measured on the vertical axis is proxied (in the above way) by the size distribution of firms in regional economies. In practice it would be necessary to examine the size distribution of all private sector firms which were indigenous to each economy or region, not including branch plants, chain stores and subsidiaries, etc.

It is interesting to note that this effect works in exactly the opposite direction to the incubator hypothesis. As a result if both hypotheses are in fact correct (and of similar magnitudes), then it would not be possible to observe a significant relationship between the proportion of workforce in small firms and the rate of new firm formation. Indeed this may explain the discrepancy between survey based studies which show very high spin-off rates for small firms (Johnson & Cathcart (1979); Gudgin et al (1979 and 1981)) and aggregate econometric results such as Whittington (1983) who could not find any relationship of this kind.

New Firms and New Employment in the Economy in Wales

Having discussed the main characteristics and trends in the Welsh industrial scene and explained their potential relevance to new firm formation, it is now necessary to estimate the number of business start-ups in Wales, identifying the type of activities involved and possibly the contribution of new firms to overall new employment in the region.

In an ideal world of data sources it would be useful to have information on new firms that would allow researchers to categorise them into different size groups and industrial sectors. It would then be possible to identify the effects that new firms have on the industrial structure of the economy, it would be possible to assess accurately the importance of new firms in job creation and the relative contribution of expansions, openings, closures and contractions.

In reality there is no data source that can come close to meeting these needs. Most research data has been obtained either using databanks from credit rating institutions for national figures (Birch 1979, Gallagher and Stewart 1984)

or from localised databanks for sub-regional figures (Storey 1981, Mason 1982, Fothergill and Gudgin 1979).

The INDIS databank used to compile the industrial database, SWISS, was the most obvious source of data on new business start-ups (and failures) in the counties of South Wales. However, there are a number of serious shortcomings in its use. Firstly, the database was only started in 1978 and this was only for the county of Mid Glamorgan. Secondly, and more importantly, is that the development of full coverage of businesses in the area has been gradual and so the appearance of one new record on the files may represent an existing firm being covered for the first time and not a new firm as such.

Given these shortcomings it was impossible to place any accuracy on the results of comparing records for any year with a base year. In order to provide some idea of the scale and type of new firm formation in Wales it was necessary to look for alternative sources of information, these include: (1) the opening and closure records of the Welsh Office, (2) self-employed figures, (3) records of the small firms service in Wales, (4) VAT registrations published by the Department of Trade and Industry. These are examined in turn.

Welsh Office Records

Table 3.8 is derived from the opening and closure records of manufacturing units in Wales kept by the Welsh Office since 1973. Between this date and the end of 1984 some 1,162 manufacturing units were recorded as openings (this includes relocation of firms within Wales) in Wales as a whole. In order to estimate the total contribution to employment of these new plants it is necessary to aggregate the current employment of those firms which are still in existance and also the loss of employment calculated at a peak level from the closure of new openings. The estimated gross new employment created in the new openings 1973-1984 is about 58,000 jobs, with almost half of these going to Gwent and Mid Glamorgan alone.

Table 3.8 OPENINGS AND CLOSURES OF MANUFACTURING UNITS IN WALES 1973-NOV.1984

	Counties								Region
Type of Change	Clwyd	Dyfed	Gwent	Gwynedd	Mid Glam	Powys	S. Glam	W. Glam	All Wales
All Openings * (nos)	183	67	276	68	244	91	141	92	1162
Current/peak employment.	8374	2435	15890	2031	12522	4048	8485	4196	5798
Closure of (nos) units opened	40	22	88	32	76	32	39	40	369
since 1973 (peak empl.)	164	867	3599	943	2826	1110	1188	1979	12670
Closure of (nos) Existing units	87	75	126	42	189	28	99	96	742
pre 1973 (peak empl.)	8592	6429	12199	2028	19263	1519	10969	10654	71653
All Closures (nos)	127	97	214	74	265	60	138	136	1111
since 1973 (peak empl.)	8756	7296	15799	2971	22089	2629	12157	12633	84329
Net change (nos) in Manufacturing	56	-30	62	-6	-21	31	3	-44	151
Units* (empl.)	-382	-4861	91	-940	-9567	1419	-3672	-8437	-2634

Source: Welsh Office, Regional Data Source, Industry Department, Unpublished.

* 1. Openings include transfers within Wales.

2. Surviving opening employment is calculated as current employment, but losses due to closure are calculated at the peak employment of the unit.

Although it is not possible to relate these figures to in-situ expansions or contractions, the data can be used to show the net change in manufacturing employment and number of plants due solely to plant openings and closures.

Thirty two percent of all the manufacturing units opened in Wales since 1973 had closed by November 1984. The highest failure rate occurs in Gwynedd where almost 50% had closed.

By combining figures for both closures of units opened since 1973 and the closure of plants that existed before 1973, it is possible to offset all closures of manufacturing establishments with all openings in the period to get the net change in manufacturing units and employment.

For Wales as a whole there was a small net gain in the number of plants between 1973 and 1984 with the counties of Dyfed, Gwynedd and Mid Glamorgan experiencing net losses. More significant than the net changes in numbers of plants however, is the resultant net effect on manufacturing employment. For the region as a whole all closures (not including contractions) resulted in the loss of 84,000 jobs, while on the plus side only 58,000 new jobs were created in openings of plants over the same period. The resultant net loss of manufacturing employment is just over 26,000 jobs, which is 8% of all jobs in manufacturing in the base year (1973), or 22% of all net job losses in Welsh manufacturing industry over the period.

Despite these net job losses it is clear that new openings represent a significant contribution to new job generation - about 5,000 manufacturing jobs a year (simple average over the 11 year period).

Self Employment

The owners of sole trader firms and unlimited partnerships are classed as self-employed in official statistics and it is worthwhile looking to these figures to enhance our knowledge of the magnitude of business start-up in Wales.

The problem with figures on self-employment is that only net totals are given and so it is impossible to break them down into the components of (a) newly self-employed people and (b) existing self-employed being taken off the register. Nevertheless a number of interesting and highly relevant trends can be identified. Table 3.9A allows regional comparisons to be made on the basis of the percentage of self-employed people in total employment.

Since 1974 there has been a general increase in the percentage of the workforce who are self-employed. Nationally there were over 2.1 million self-employed in 1981, almost 10% of all employees in employment. There are, however, significant differences between regions with differentials of over 8% of total employment (c.f. North region with East Anglia).

Wales, Northern Ireland, the South West and East Anglia are relatively more dependent on self-employment than the U.K. as a whole, with Scotland and the North region having particularly low scores.

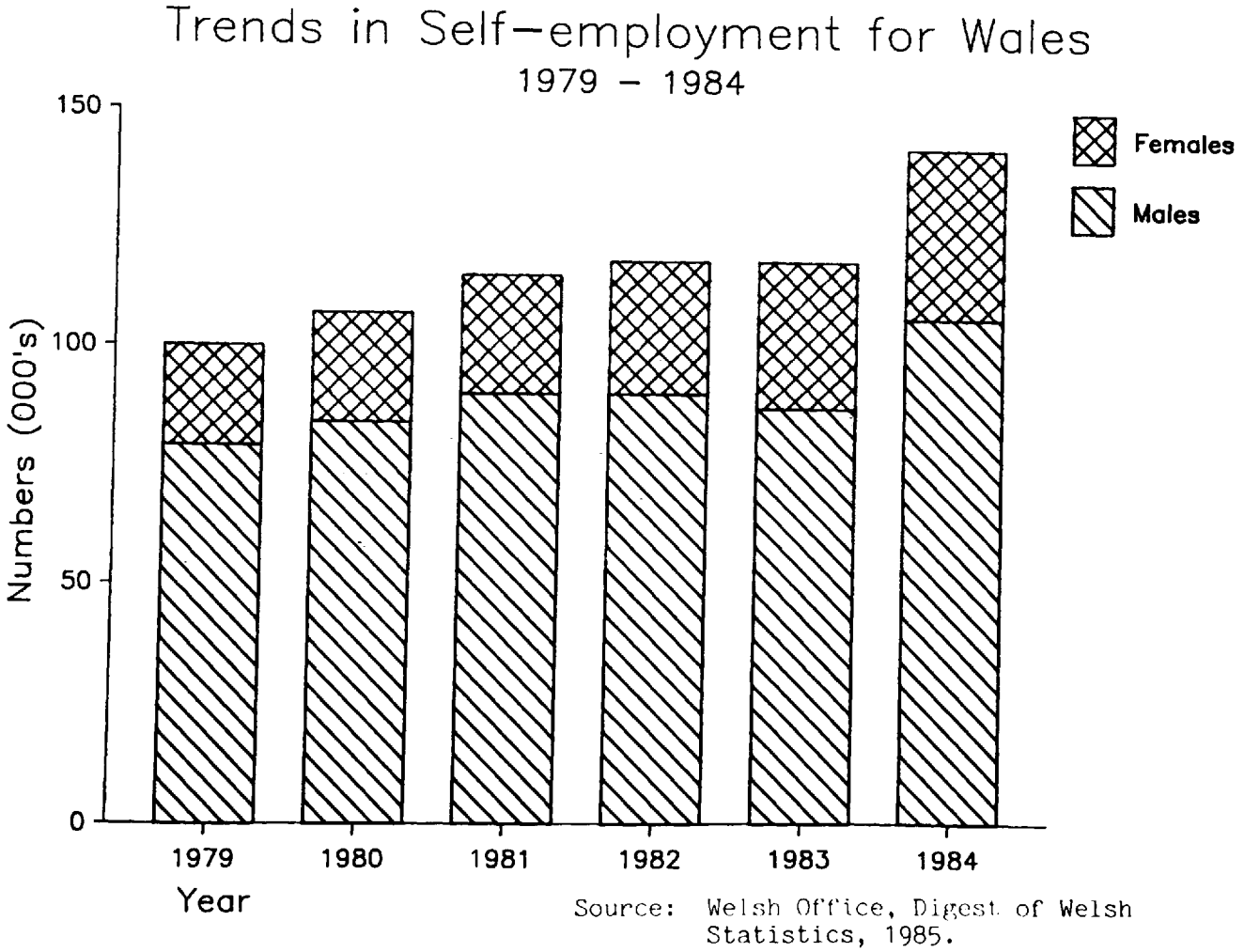
Figure 3.4 shows a more detailed picture of trends in self employment for Wales only. It can be seen that between 1979 and 1984 there was a net increase in self-employment of over 40% which is a rise of 42,000 jobs. This is even more significant when compared to overall trends in employment in Wales because over the same period non self-employed employees in employment slumped by 174,000. By 1984 142,000 people were classified as self-employed in Wales, or almost 16% of the employed working population (substantially more than most other regions based on 1981 data). Within this overall trend it is interesting to note that the increase in self-employment has not been neutral between men and women. The numbers of self-employed females increased by 70% in the 5 years since 1979, the increase for men was a more modest 35%, but it should be noted that even in 1984 three quarters of all self-employed people were male. (Figure 3.5).

Despite this overall picture it must be recognised that there are very considerable age, sectorial and geographical differences in the ratio of self-employed to employed labourforces within each region. This is particularly the case at the district and sub-district level. An illustration of this can be made from Table

Figure 3.4

Source: Welsh Office, Digest of Welsh Statistics, 1985.

Figure 3.5



Source: Welsh Office, Digest of Welsh Statistics, 1985.

Table 3.9A

SELF-EMPLOYED LABOUR FORCE BY REGIONS OF U.K. 1974-81

SELF-EMPLOYED IN THOUSANDS (Figures in parenthesis self-employed as a percentage of employees in employment)

AREA	1974	1975	1978	1979	1980	1981
U.K.	1,996 (8.8)	1,994 (8.8)	1,904 (8.4)	1,903 (8.2)	2,011 (8.8)	2,118 (9.7)
NORTH	81 (6.5)	68 (5.4)	69 (5.6)	57 (4.6)	71 (5.9)	84 (7.5)
YORKSHIRE & HUMBERSIDE	165 (8.3)	168 (8.5)	147 (7.4)	130 (6.5)	147 (7.4)	164 (8.9)
EAST MIDLANDS	117 (7.9)	150 (10.1)	147 (9.6)	153 (9.8)	148 (9.6)	144 (9.8)
EAST ANGLIA	77 (11.6)	79 (11.8)	78 (11.4)	84 (12.7)	88 (12.4)	87 (12.8)
SOUTH EAST	673 (9.1)	635 (8.7)	614 (8.4)	635 (8.5)	668 (9.3)	700 (9.6)
SOUTH WEST	182 (12.0)	188 (12.3)	153 (9.8)	148 (9.2)	188 (11.7)	227 (14.7)
WEST MIDLANDS	162 (7.2)	166 (7.5)	146 (6.6)	131 (5.9)	151 (6.8)	170 (8.3)
NORTH WEST	225 (8.3)	210 (7.9)	201 (7.6)	212 (7.9)	215 (8.2)	217 (8.8)
ENGLAND	1,682 (8.8)	1,664 (8.7)	1,555 (8.1)	1,554 (8.0)	1,674 (8.6)	1,973 (9.7)
WALES	110 (11.1)	111 (11.1)	115 (11.3)	100 (9.7)	108 (10.8)	115 (12.2)
SCOTLAND	143 (6.9)	158 (7.6)	173 (8.4)	188 (8.9)	168 (8.0)	149 (7.4)
NORTHERN IRELAND	61 (12.4)	61 (12.3)	61 (12.1)	61 (11.7)	61 (11.9)	61 (12.6)

SOURCE: Central Statistics Office, Regional Trends 1984, Table 7.1

Table 3.9B PROPORTION OF SELF-EMPLOYED TO ECONOMICALLY ACTIVE PERSONS (OVER 16) IN 1981*

Persons		England & Wales	Industrial South	Mid Glam	Cynon Valley	Merthyr Tydfil	Ogwr	Rhondda	Rhymney Valley	Taff Ely
Economically Active		22,988,086	765,760	233,231	28,103	26,157	56,388	33,849	45,787	42,947
Seeking Work		1,983,705	87,387	27,287	3,271	3,246	6,175	4,662	5,760	4,164
Self-Employed		2,134,391	53,565	14,613	1,717	1,409	3,853	1,989	2,701	2,944
% of Self-Employed		9.3	6.99	6.26	6.1	5.4	6.8	5.9	5.9	6.8
Persons over 16 but under 25 years of age	No. Econ Active	4,751,899	163,420	50,676	6,040	5,940	11,736	7,856	10,299	8,795
	No. Self-Employed	144,830	3,287	935	116	85	246	120	172	196
	%	3.1	2.01	1.85	1.9	1.4	2.1	1.53	1.67	2.2

* Based on 100% sample data (Part I of Census)

Source: Office of Population Census and Surveys, County Report Mid Glam, Census 1981, Table 12. CEN 81 CR51, HMSO London 1982.

Table 12, Census 1981, National Report GB - Part I CEN 81 NR(1)

3.9A which shows the proportion of self-employed to economically active workforce in the 1981 Census of Population. The ratio of 6.9% for industrial South Wales as a whole is significantly different at the 5% level to the 9.3% for England and Wales as a whole. Furthermore, the county of Mid Glamorgan has a still lower figure with each of its constituent districts having a lower propensity to self-employment than even the average for industrial South Wales. The figure for Merthyr Tydfil for example, is particularly low with the national average being over 70% higher. (These differentials are even more striking in the 16 to 25 age group). It is, therefore, necessary to bear in mind these sub-regional differences (possibly a function of industrial structure) in self-employment when studying new firm formation in Wales or any other economy for that matter.

Small Firm Enquiries

In an attempt to gain other perspectives on new firm formation in the Welsh, economy data was obtained from the Small Firms Service in Wales. The Small Firms Service (SFS) keeps records of all enquiries it receives, including the location of enquiry by county, the size of the business, type of business and whether or not it is an enquiry for a new venture or an existing business.

It is important to note, however, that the location and even the type of clients that the SFS attracts will be at least partially influenced by the level and form of advertising and promotion undertaken in any area, A more significant problem with the data is that a number of enquiries may be repetitive, with more than one enquiry from the same individual or business.

Despite these shortcomings the information presented in Table 3.10 provides a broad indication of the level of interest in starting up a business in different counties of Wales and the type of activity being considered.

During 1984 the SFS in Wales received over 16,000 enquiries, of these almost 9,200 (or 57%) were enquiries specifically relating to business start-ups. The most striking feature is the very low percentage of start-ups intended in the manufacturing sector - less than 17% of

Table 3.10 START-UP ENQUIRIES AT THE SMALL FIRMS SERVICE FROM BUSINESSES (AND PROSPECTIVE BUSINESSES) IN WALES DURING 1984

(Figures in parenthesis are percentages for each county).

Source of Enquiry / Area	Manufacturing	Retail	Const'n.	Services	All
Mid Glam	209 (16)	284 (29)	65 (5)	647 (50)	1305 (100)
S. Glam	554 (15)	1049 (29)	162 (4.5)	1848 (51)	3613 (100)
W. Glam	118 (16.8)	220 (31)	30 (4.2)	342 (48)	710 (100)
Dyfed	154 (24)	141 (22)	32 (5)	327 (50)	654 (100)
Gwent	191 (15)	366 (29.2)	54 (4.3)	642 (51)	1253 (100)
Powys	39 (17)	71 (31)	8 (3.5)	111 (48.5)	229 (100)
Clwyd	136 (19.2)	201 (28.3)	28 (4)	344 (48.5)	709 (100)
Gwynedd	94 (20.5)	131 (27)	44 (9.2)	214 (44.3)	483 (100)
Outside Wales	46 (20.5)	67 (30)	9 (4)	102 (45.5)	224 (100)
ALL	1541 (16.8)	2630 (28.6)	432 (4.7)	4577 (50)	9180 (100)

Source: Small Firms Service (Cardiff) Unpublished

the total. Together the retail and other service sectors make up almost 80% of all intended destinations for new firms. Furthermore, this picture is consistent for each county of Wales, except Dyfed where more people intend starting in manufacturing business than in retailing.

Clearly if actual start-ups reflect this trend, then there will be a number of important implications for self-sustaining regional growth. These must be examined in more detail and to analyse the extent to which existing theory can explain these start-up intentions.

V.A.T. Statistics

The most comprehensive source of data on business start-up and failure in the U.K. is the register of firms paying V.A.T. By examining registrations for V.A.T. the number of business start-ups can be estimated, likewise the numbers of de-registrations can be used to estimate the failure rate of firms.

Since 1982 the Department of Trade and Industry has been publishing V.A.T. registration statistics and a number of these provide a source of data on Welsh business start-ups[1]. Although this data is the best available (Bannock, 1985, pp.XII-XIII), there are a number of limitations in their use and interpretation. Ganguly (1982) describes the major problems as:-

1. The definition of births has to be made according to the data available, i.e. the V.A.T. threshold, but since the thresholds were set, so as to bring in virtually all full-time traders, this seems a reasonable definition.

2. Not all registrations are births as such, but do exclude voluntary registrations and those caused by changes in legal identity, since registrations can come from very small existing businesses whose turnover has risen above the threshold - caution must, therefore, be exercised in using the statistics to deduce any particular number of truly new firms.

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1. A list of available statistics on Wales is provided in the reference section at the end of this chapter.

Table 3.11

County Analysis of Welsh Business Start-Ups 1980 - End 1983

As Measured by VAT Registrations

(Figures in parenthesis are the start up rate per 1,000 of the working population)

	Agriculture	Production	Construct.	Transport	Wholesale	Retail	Finance & Prof. Services	Catering	Motor Trades	All Other	Total Nos. (Non Agriculture)
Clwyd	314 (2.3)	274 (2.0)	633 (4.7)	179 (1.3)	268 (2.0)	815 (6.0)	123 (0.9)	491 (3.6)	237 (1.8)	367 (2.9)	3407 (25.2)
Dyfed	1195 (10.4)	231 (2.0)	650 (5.7)	110 (1.0)	233 (2.)	750 (6.5)	132 (1.2)	691 (6.0)	225 (2.0)	317 (2.8)	3339 (29.1)
Gwent	229 (1.3)	393 (2.2)	698 (3.9)	198 (1.1)	297 (1.7)	941 (5.3)	149 (0.8)	449 (2.5)	282 (1.6)	407 (2.3)	3814 (21.4)
Gwynedd	393 (5.0)	142 (1.8)	362 (4.6)	84 (1.1)	104 (1.3)	577 (7.3)	66 (0.8)	452 (5.7)	125 (1.6)	206 (2.6)	2118 (26.8)
Mid Glam	98 (0.5)	294 (1.5)	756 (3.9)	209 (1.1)	256 (1.3)	1091 (5.6)	112 (0.6)	515 (2.7)	244 (1.3)	290 (1.5)	3767 (19.4)
Powys	512 (14.9)	124 (3.6)	238 (6.9)	55 (1.6)	96 (2.8)	255 (7.4)	46 (1.3)	233 (6.8)	86 (2.5)	101 (2.9)	1234 (35.8)
S. Glam	45 (0.2)	340 (1.8)	713 (3.9)	180 (1.0)	364 (2.0)	910 (4.9)	233 (1.3)	367 (2.0)	229 (1.3)	550 (3.0)	3386 (21.0)
W. Glam	78 (0.5)	254 (1.5)	485 (2.9)	135 (0.8)	238 (1.4)	744 (4.4)	107 (0.6)	386 (2.3)	181 (1.1)	371 (2.2)	2901 (17.3)
Wales	2864 (2.6)	2052 (1.9)	4535 (4.1)	1150 (1.1)	1856 (1.7)	6011 (5.5)	968 (0.9)	3584 (3.3)	1609 (1.5)	2629 (2.4)	24394 (22.2)
U.K.	28199 (1.2)	64850 (2.7)	97152 (4.0)	26270 (1.1)	59844 (2.4)	132654 (5.4)	40570 (1.7)	63591 (2.6)	36577 (1.5)	96960 (4.0)	620468 (25.4)

Source: (1) Department of Trade & Industry. British Business, 1985, January 18th. 1985, pp.107-110.

(2) Central Statistics Office, Regional Trends, 1985.

Note: The limitations of the data are described by Ganguly, British Business, 2 April 1982, pp.649-650 and British Business, 29 January 1982, p.207.

3. Registrations can come from new subsidiaries of companies, although not in all cases and so the figures are not solely those of new independent firms.

4. Exemptions for V.A.T. vary substantially in the other services and financial service sector.

5. Changes in V.A.T. thresholds will effect the number of registrations although this is usually indexed and Ganguly argues that this problem appears to be less significant than might be supposed.

6. The main limitation of the V.A.T. data is that it does not provide employment information.

Table 3.11 outlines the most recent and detailed V.A.T. figures available for Welsh business start-ups. It shows the number of start-ups by sector for each of the counties of Wales over a 4 year period, 1980 to 1983 inclusive. Start-up rates are conventionally calculated as per 1,000 manufacturing employees, but a more representative figure of per 1,000 of the working population is used here[1]. The start-up rates are shown in parenthesis in Table 3.11.

The actual start-up figures will be used in Chapter 9 in order to estimate the significance of new firm employment to the Welsh economy. At this stage, however, we concentrate on the start-up rate. The data from Table 3.11 is presented graphically in a series of figures (3.6 - 3.25).

Overall, the U.K. start-up rate is slightly over 14% above that exhibited by the Welsh small firm sector, suggesting that Wales does indeed have a climate for incubation, which is less conducive to new firm formation than that of the U.K. as a whole. There are very considerable

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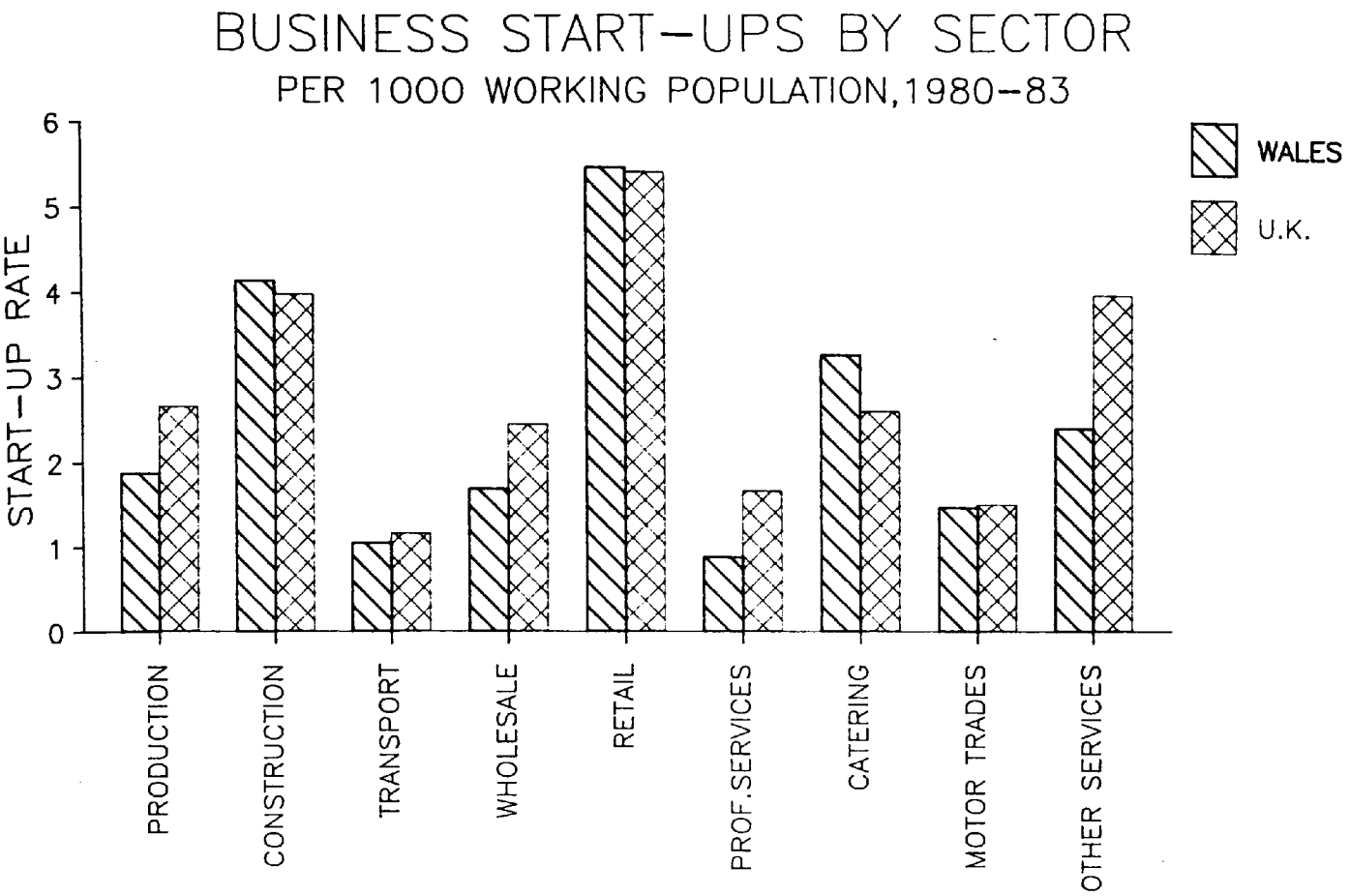
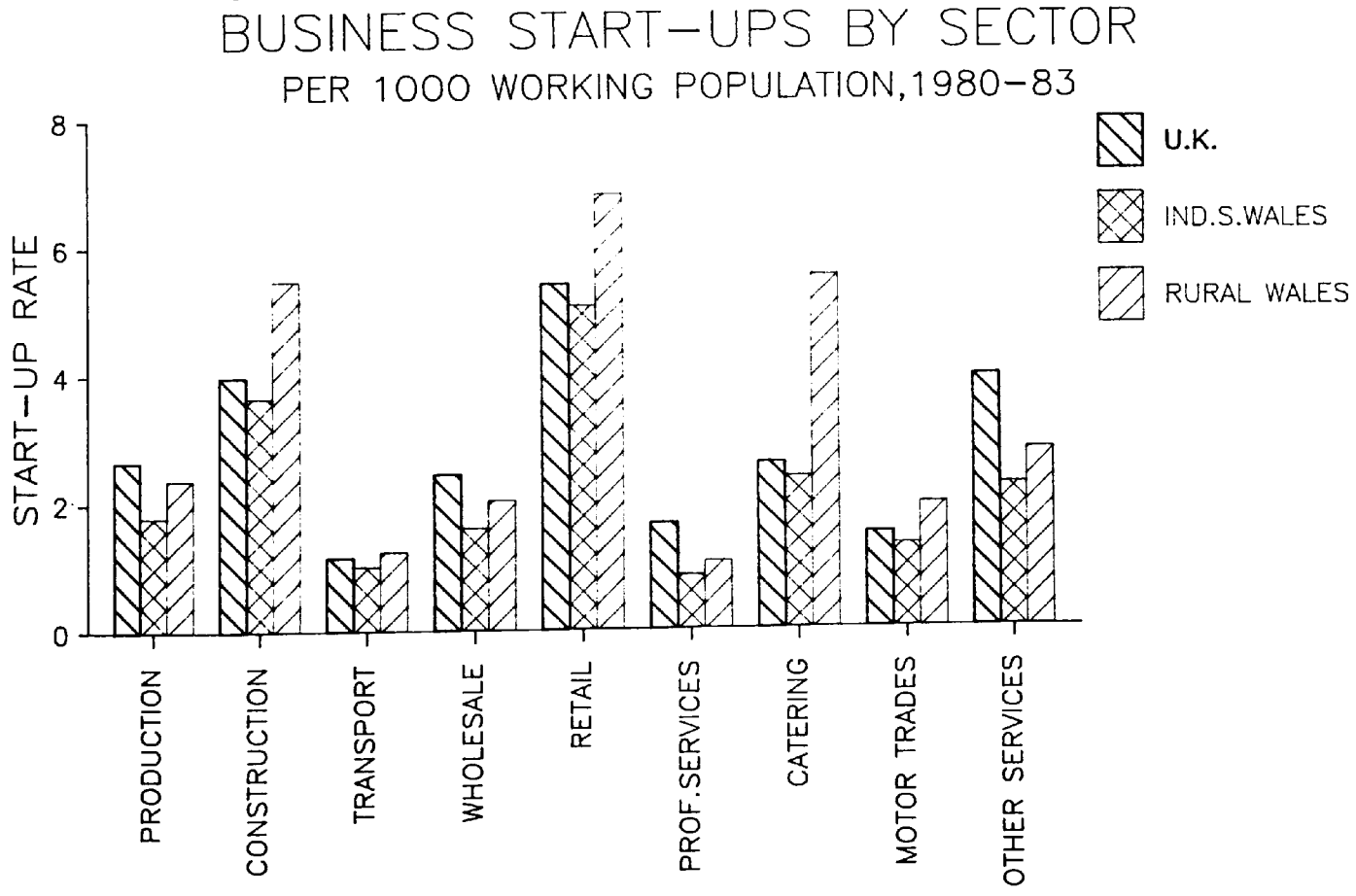
1 Start-up rates are usually averaged on an annual basis, but are treated here over the entire 4 year period.

Figure 3.6



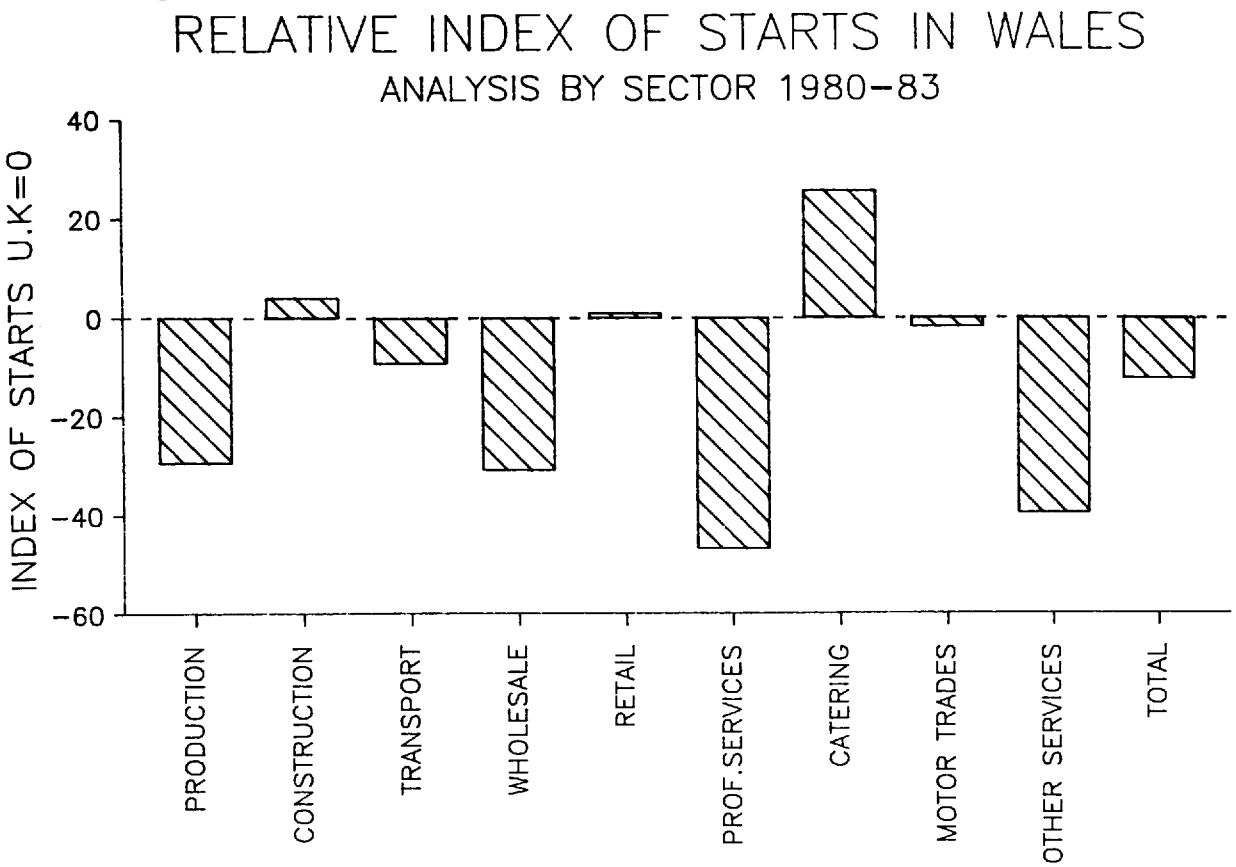
Source: See Table 3.11

Figure 3.7



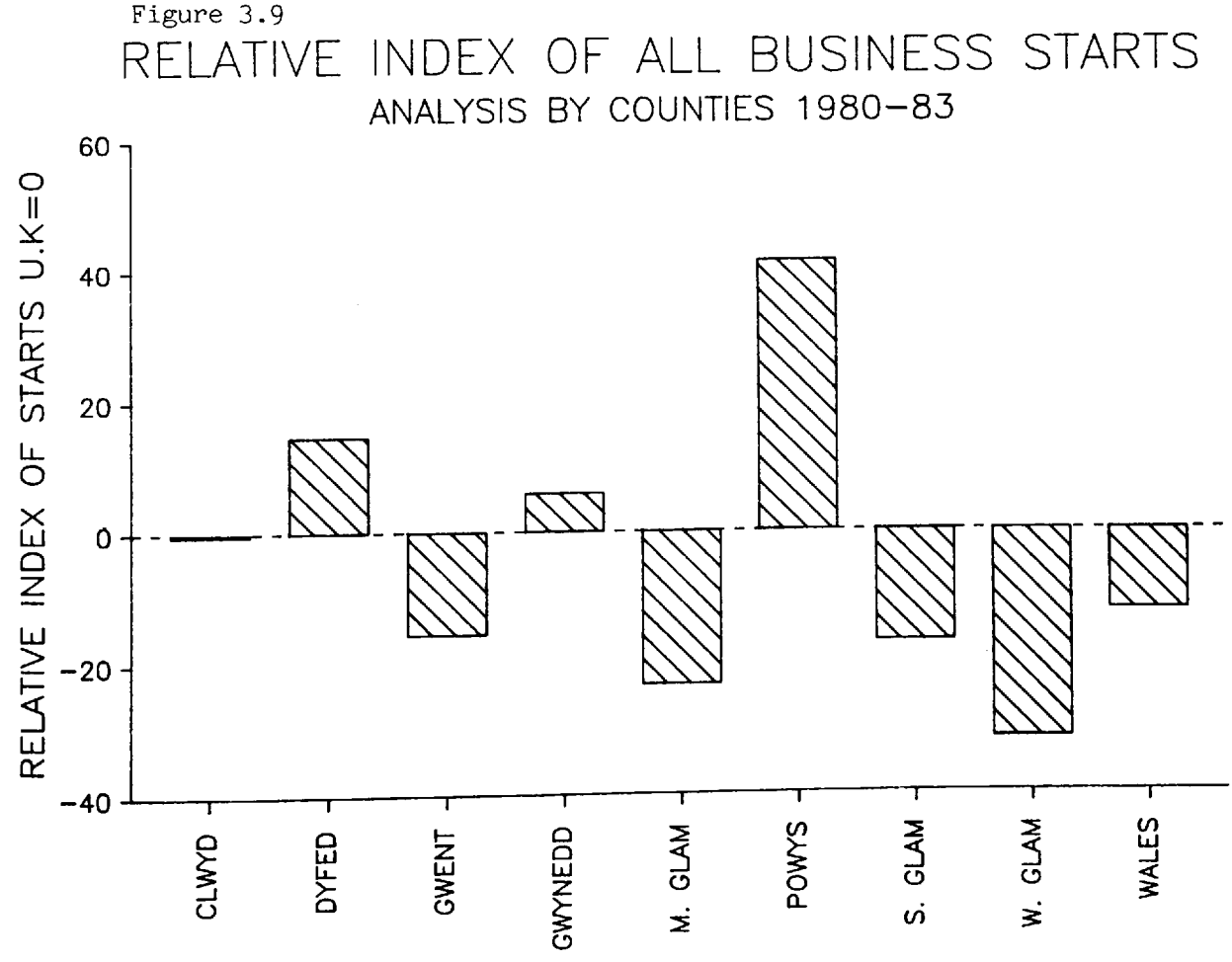
Source: See Table 3.11

Figure 3.8

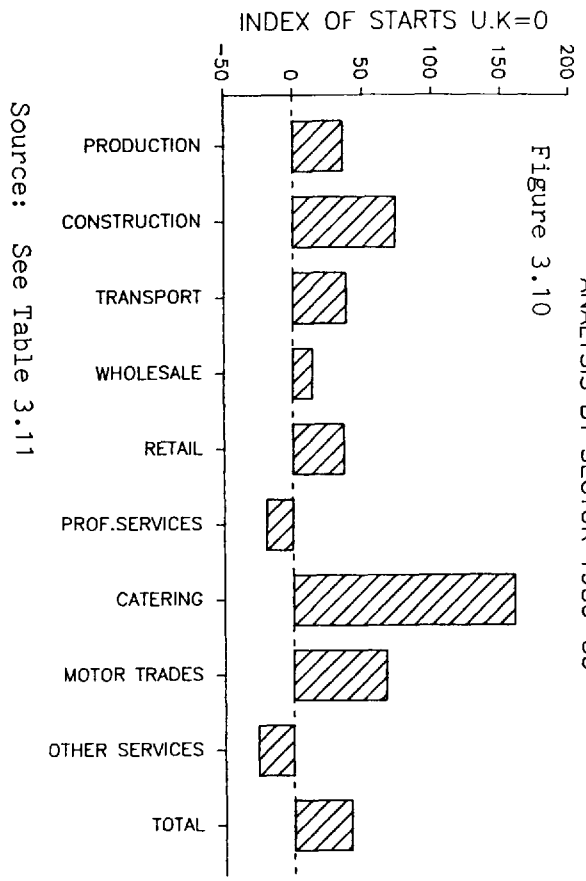


Source: See Table 3.11

Figure 3.9



Source: See Table 3.11

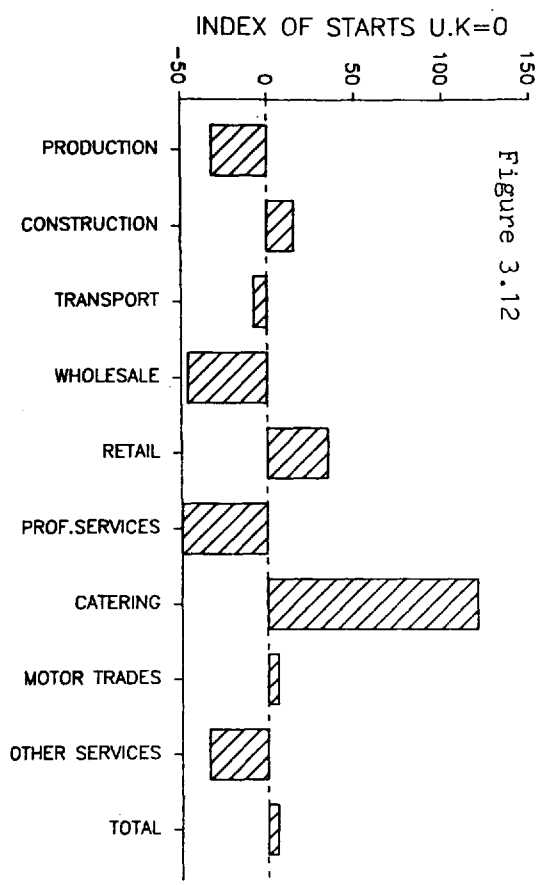


RELATIVE INDEX OF STARTS IN POWYS

ANALYSIS BY SECTOR 1980-83

Figure 3.10

Source: See Table 3.11

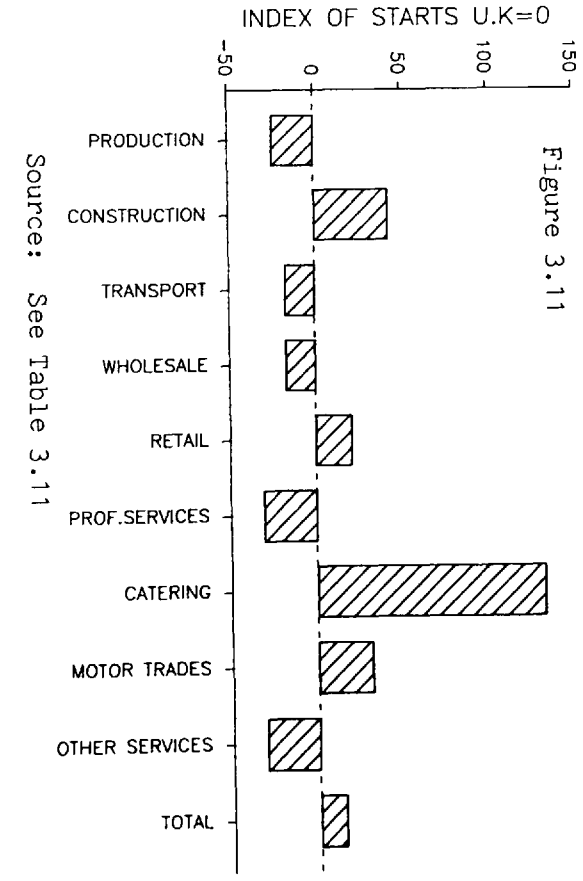


RELATIVE INDEX OF STARTS IN GWYNEDD

ANALYSIS BY SECTOR 1980-83

Figure 3.12

Source: See Table 3.11

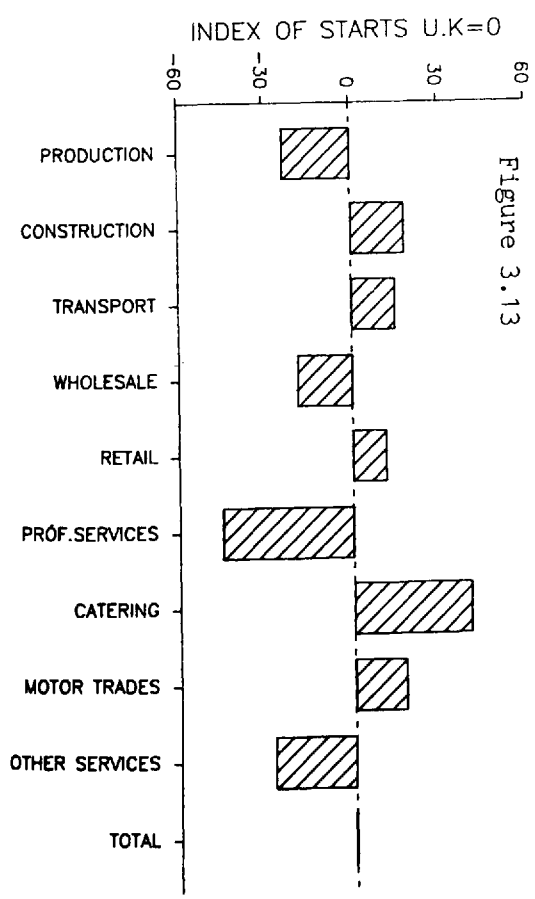


RELATIVE INDEX OF STARTS IN DYFED

ANALYSIS BY SECTOR 1980-83

Figure 3.11

Source: See Table 3.11



RELATIVE INDEX OF STARTS IN CLWYD

ANALYSIS BY SECTOR 1980-83

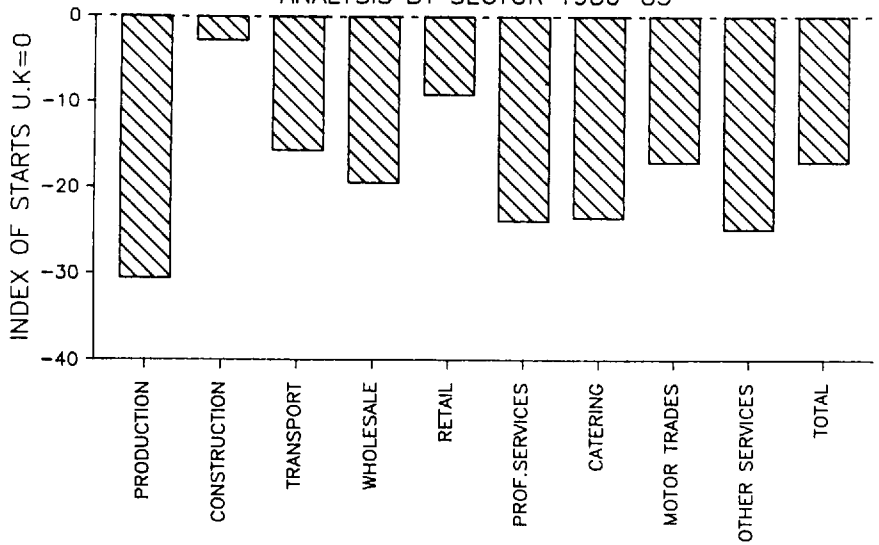
Figure 3.13

Source: See Table 3.11

Figure 3.15

RELATIVE INDEX OF STARTS IN S.GLAM

ANALYSIS BY SECTOR 1980-83

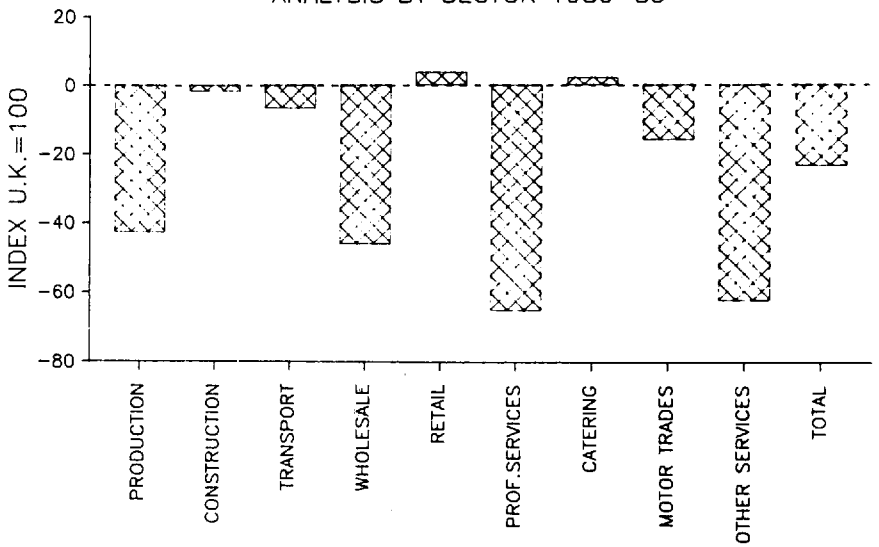


Source: See Table 3.11

Figure 3.14

RELATIVE INDEX OF STARTS IN M.GLAM

ANALYSIS BY SECTOR 1980-83

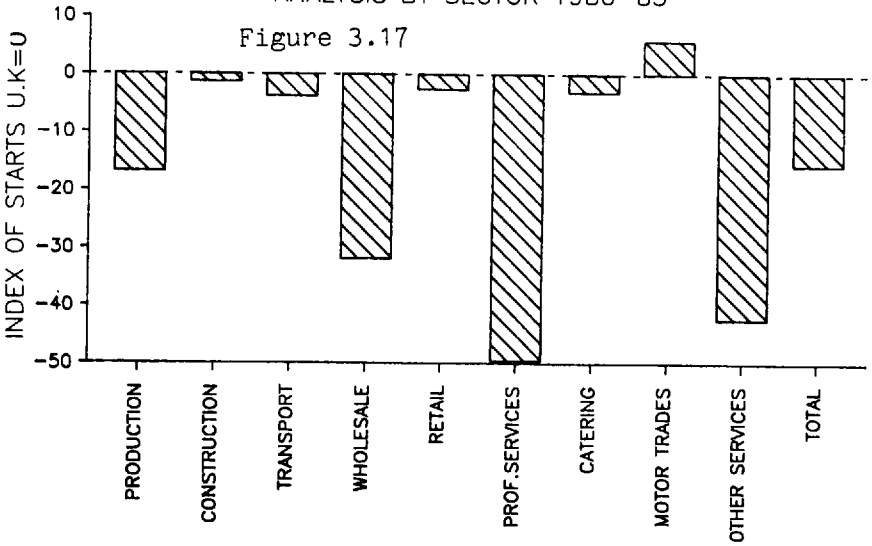


Source: See Table 3.11

RELATIVE INDEX OF STARTS IN GWENT

ANALYSIS BY SECTOR 1980-83

Figure 3.17

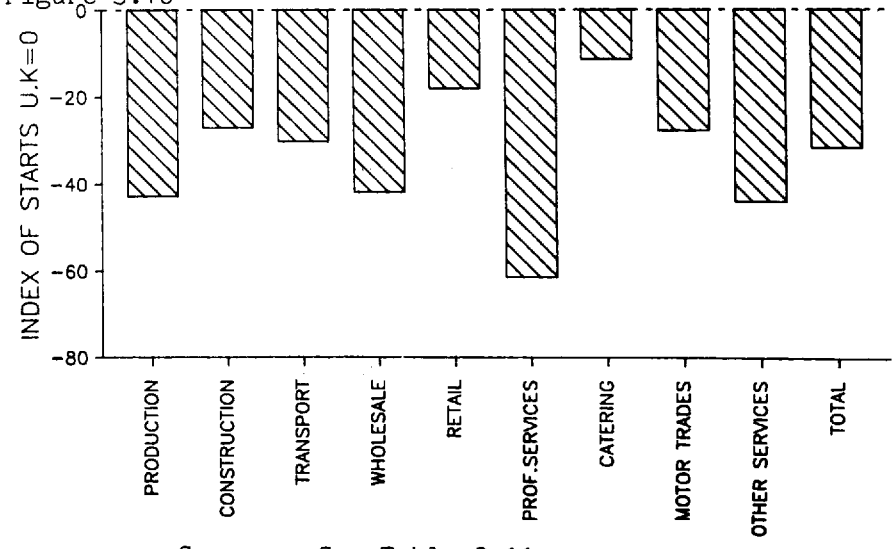


Source: See Table 3.11

RELATIVE INDEX OF STARTS IN W.GLAM

Figure 3.16

ANALYSIS BY SECTOR 1980-83

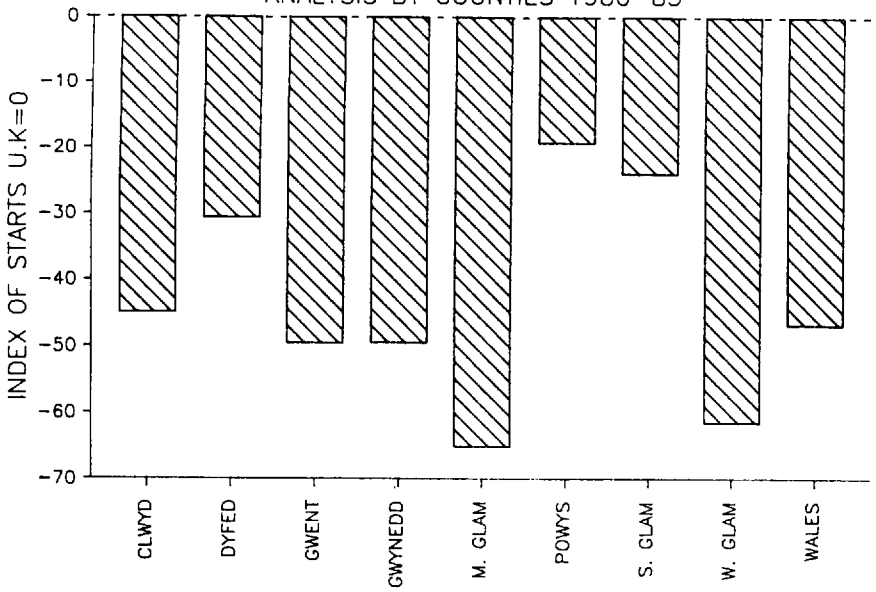


Source: See Table 3.11

Figure 3.19

RELATIVE INDEX OF STARTS IN PROFESIONAL SERVICES

ANALYSIS BY COUNTIES 1980–83

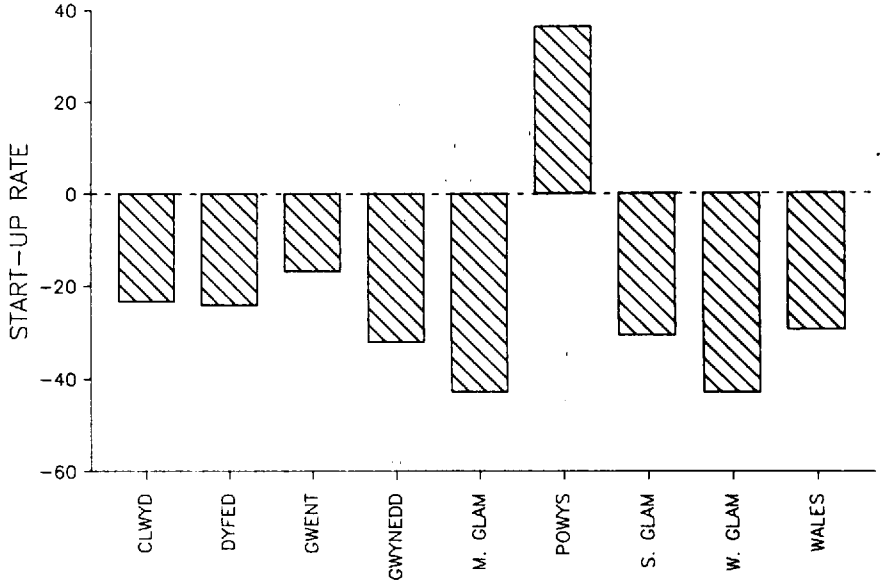


Source: See Table 3.11

Figure 3.18

RELATIVE INDEX OF STARTS IN PRODUCTION

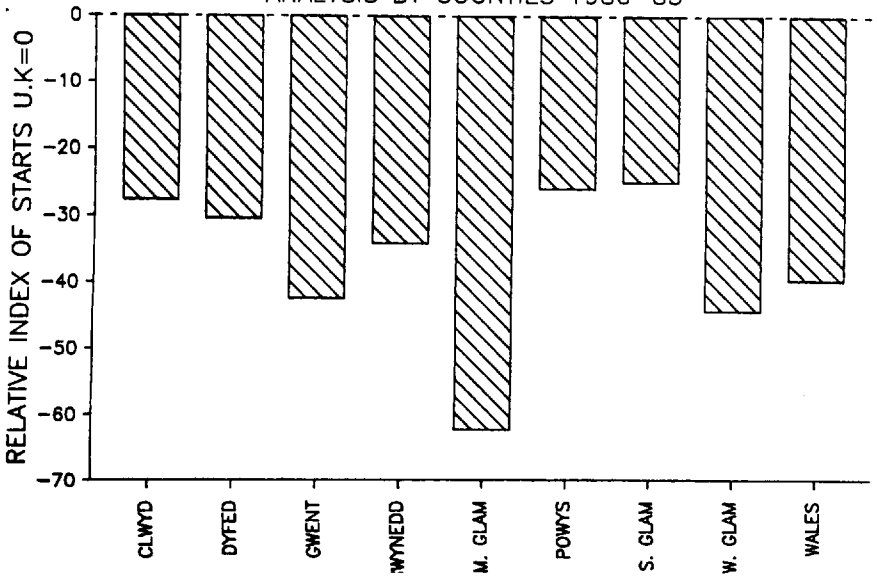
ANALYSIS BY COUNTIES 1980–83



Source: See Table 3.11

RELATIVE INDEX OF STARTS IN OTHER SERVICES

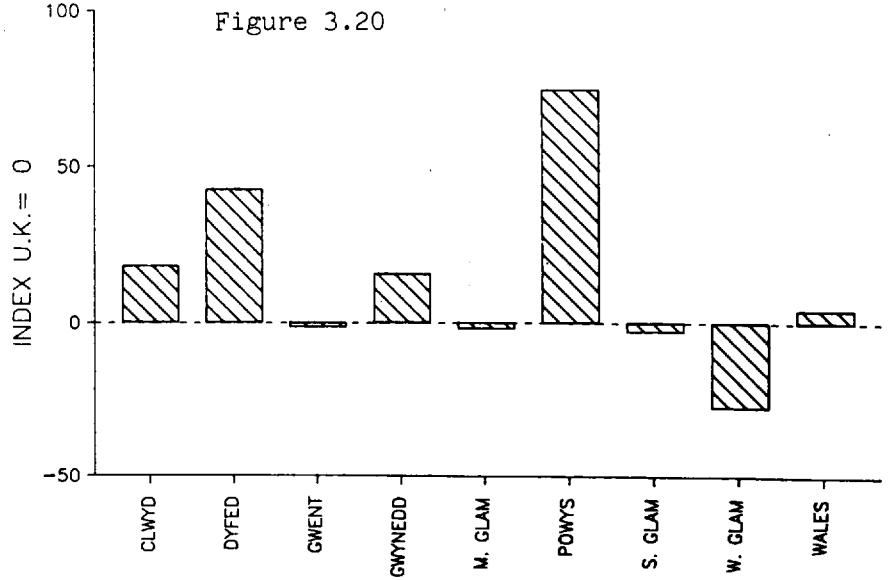
Figure 3.21 ANALYSIS BY COUNTIES 1980–83



RELATIVE INDEX OF STARTS IN CONSTRUCTION

ANALYSIS BY COUNTIES 1980–83

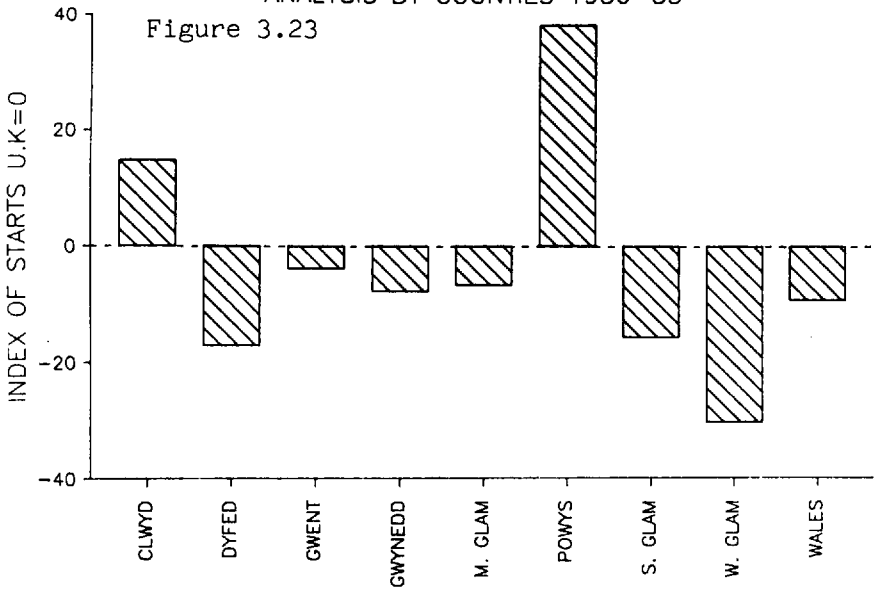
Figure 3.20



RELATIVE INDEX OF STARTS IN TRANSPORT

ANALYSIS BY COUNTIES 1980–83

Figure 3.23

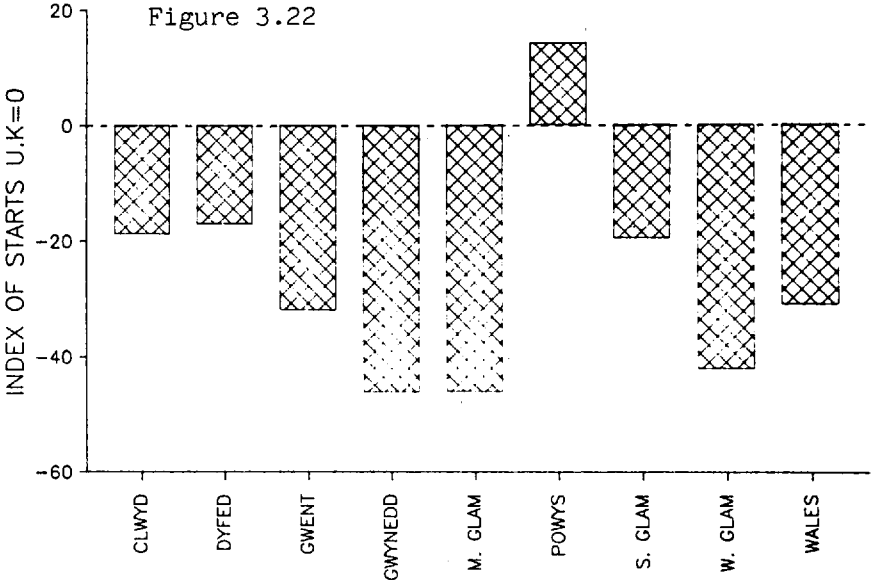


Source: See Table 3.11

RELATIVE INDEX OF STARTS IN WHOLESALE

ANALYSIS BY COUNTIES 1980–83

Figure 3.22

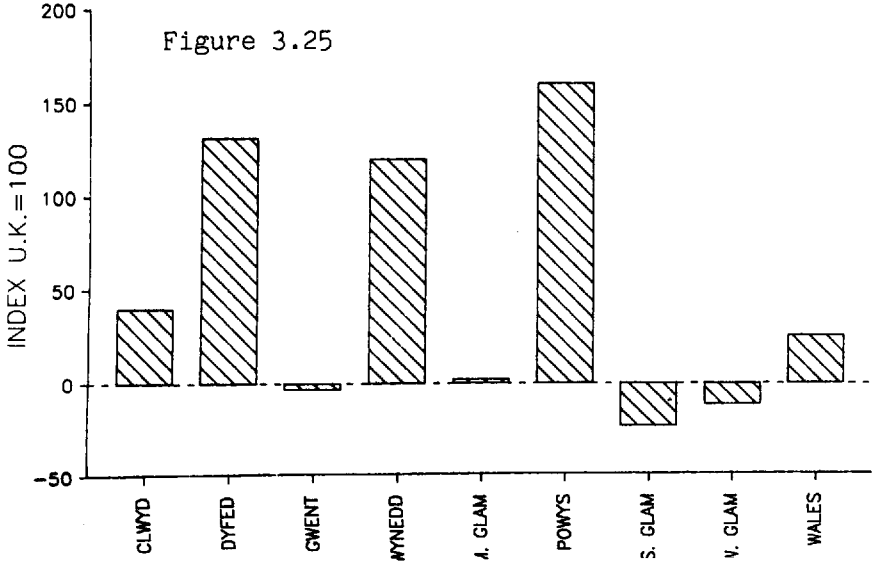


Source: See Table 3.11

RELATIVE INDEX OF STARTS IN CATERING

ANALYSIS BY COUNTIES 1980–83

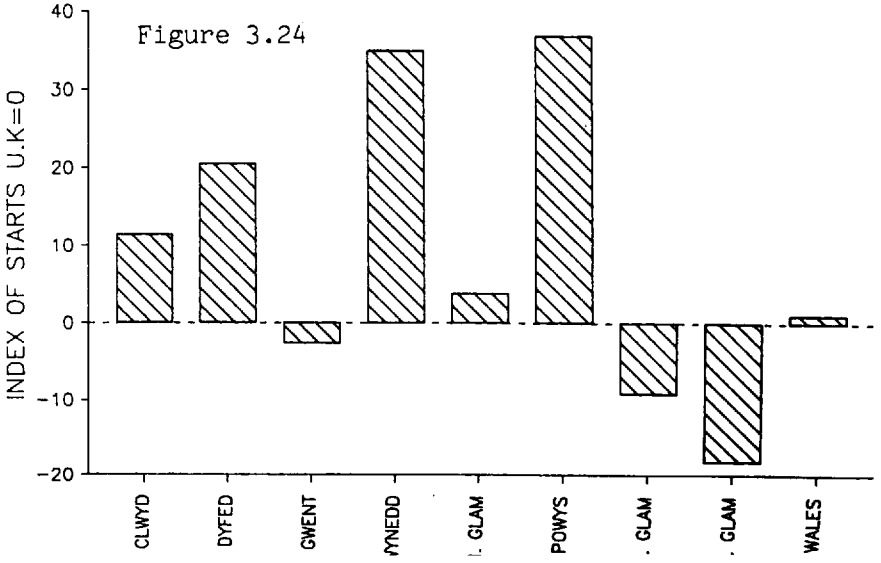
Figure 3.25



RELATIVE INDEX OF STARTS IN RETAIL

ANALYSIS BY COUNTIES 1980–83

Figure 3.24



variations within this trend, however[1]. Only in catering trades does Wales have a significantly higher rate of start-up, whereas production activities, wholesale, professional and other services are all at least 30% below the start-up rates for the U.K. as a whole.

Almost every sector in Gwent, Mid, South and West Glamorgan (industrial South Wales) have start-up rates below the national average, with the lowest overall rates being in West and Mid Glamorgan (32% and 23% respectively below the U.K. formation rates). As the graphs show there are quite large discrepancies between formation rates (compared to the U.K.) across sectors even within the same counties. In particular, not one of the Welsh counties have formation rates greater than, or even equal to, those in the U.K. in either the 'other services' sector or professional and financial services. In the manufacturing sector (production), the formation rate for Wales is 29.4% below that of the U.K. with Powys being the only county exhibiting rates above the U.K. average. Once again, West and Mid Glamorgan are the poorest performers, both almost 43% below the national average.

How significant are the differences? Consider the production sector alone. If the firm formation rate in Wales was the same as the U.K. as a whole, then on average (over the period 1980-83) another 214 manufacturing firms would have been set-up each year in Wales. Using methods outlined in Chapter 9, it is possible to make rough estimates of the effect on new firm employment. It is estimated that these extra 214 firms would have resulted in an additional 1,100 to 1,200 manufacturing jobs within 2 years of them starting up. Clearly if small firms policies in Wales are successful in raising the rate of firm formation to those around the national average, then

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1 The graphs that show a relative index of start-ups compare the deviation from the U.K. average of each figure and is indexed to show the percentage deviation, (i.e. expected - actual graph) - the U.K. average is the base 0. U.K. = 0.

they may have a significant impact on job creation[1]. If the causes of the lower start-up rates can be identified and overcome then there is clearly considerable scope for improving the employment prospects, particularly in industrial South Wales.

The Urban-Rural Disparity

Figure 3.7 shows the rate of business start-ups per 1,000 of the working population over the 4 year period 1980-1983 for both industrial South Wales and rural Wales. There is clearly a considerable difference in formation rates in rural and urban areas. For each of the nine sectors of trade shown, start-up rates are higher in rural areas than in industrial South Wales.

Areas of rural Wales have particularly high figures in construction, retail and catering trades (in catering, for example, rural areas have a rate twice as high as the national average). Overall, rural areas have start-up rates almost 50% higher than those of industrial South Wales, even excluding agriculture.

The urban-rural disparity in new firm formation rates have been noted by a number of researchers - O'Farrel and Crouchley (1984, p.225) for Ireland; Gould and Keeble (1984, p.190) for East Anglia; Fothergill and Gudgin (1984, p.204) and Gudgin (1978) for the East Midlands. All these have established that firm formation rates are significantly higher in rural areas than in towns and other urban areas.

While recognising that all of these studies deal only with manufacturing firms, a number of explanations of the urban-rural difference have been put forward. Gould and Keeble have argued that the difference is explained by differences in the proportion of employment in non-manual occupations. They suggest that non-manual employees in

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1 During 1984 there were almost 8,000 confirmed manufacturing redundancies (source MIU unpublished) in Wales - suggesting that about 15% of these jobs could be replaced by somehow increasing the formation rate alone to that of the U.K. as a whole.

general have a broader range of skills and therefore, are more likely to be better at starting a new business venture. (In fact regression analysis by Whittington has shown that the proportion of manual workers was a significant element in determining regional differences in firm formation rates).

Fothergill and Gudgin, however, regard this relationship as spurious and their own regression results (on data for the East Midlands) seem to show that differences in non-manual percentages do not cause the urban-rural disparity. Fothergill and Gudgin conclude that the urban-rural contrast in formation rates is due to the methods used to measure formation rates. New firm formation rates are usually calculated as 'per 1,000 manufacturing employees'.

This, they claim leads to an exaggeration in formation rates in rural areas which tend to have much smaller manufacturing bases, thus, when formation rates are calculated, which also include a proportion of non-manufacturing employment, then the urban to rural difference largely disappears.

The arguements put forward by Fothergill and Gudgin do not, however, explain the differences in urban and rural areas of Wales (Figure 3.7). This is evident for two reasons; firstly, the previous figures show that there are even more significant urban-rural differences (for Wales at least) in new firm formation rates in non-manufacturing trades and secondly, the formation rates used in this research are based on start-ups per 1,000 of the working population which includes both manufacturing and non-manufacturing employment along with the unemployed.

For Wales at least, the disparity remains unexplained either by differences in non-manual employment levels or by methodological problems. If there are significant differences in the size distribution of firms between urban and rural areas then the incubator effect may be the real cause of the disparity in formation rates. For example, Dyfed has a formation rate almost 20% above that of the U.K. average and around 50% above that of industrial South Wales, this may be caused by the larger proportion of manufacturing employment working in small plants. Table 3.5 shows that over 20% of Dyfed's manufacturing employment is in firms of less than 20

employees, compared to 12% in South Glamorgan and only around 5% in Mid and West Glamorgan. Two pieces of evidence, however, may suggest that this factor does not wholly explain the urban-rural difference; firstly, Gould and Keeble found that the relationship between small plant size and firm formation across rural-urban areas was, in fact, in the wrong expected direction and weak. Secondly, it will be shown in Chapter 4 that the importance of the incubator effect in the Welsh small firm sector may be less significant than that suggested by other studies.

Tables 3.6 and 3.7 also suggest another possible explanation of the rural-urban disparity, it was shown that rural areas tend to have relatively low wages compared to either industrial South Wales or the national average for that matter. Furthermore, non-manual workers were even further behind the national average weekly earnings than manual workers. Both these factors would tend to result in a higher rate of business formation in rural rather than urban areas. As stated earlier, differences in wage rates have not been analysed in other studies, but may provide scope for further research. A more simple explanation may exist, however, since the rural areas have lower overall populations, thus, if there is some threshold effect, where in any population there will be a minimum level of entrepreneurship, i.e. autonomous entrepreneurship, then an urban-rural difference will exist because of averaging rates across areas of very different population sizes. This threshold effect would be shown up in regression equations by a constant term and this hypothesis is supported by the regression results of Fothergill and Gudgin (1983, pp.204-205), which shows highly significant constant terms which also have quite high values. In contrast, Whittington (1983, p.255), who does not make the distinction between urban and rural areas found that there was no constant term at all. Indeed, the threshold effect might be expected to be more important in trades such as catering, construction and retailing and it is these that seem to show the greatest difference in formation rates.

Similar differences in formation rates across areas of different absolute populations may also be caused by a diminishing rate of start-up with respect to various dependent variables. (This would cause a lower average

start-up rate in urban rather than rural areas). However, all of the models used in the above studies to test the determinants of formation rates have been linear, although there are good reasons for thinking that the relationships may well be non-linear.

Of course, it is possible that firms formed in rural areas are formed for different reasons and display very different characteristics to those in urban areas, but the rest of this research is based on a study of new independent firms in industrial South Wales only.

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The following is a list of available VAT information to date, from which figures for Wales can be obtained.

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2. Department of Trade and Industry Regional Estimates (Provisional) 1981 and 1980.
British Business, 1982, 23-29 July.

3. Department of Trade and Industry Quarterly Data for Regions 1980 and 1981.
British Business, (a) 2 April 1982, (b) 24-30 September 1982.

4. Department of Trade and Industry Regional Estimates by Assisted Areas (Starts and Stops) for 1982. British Business, 1983, 10 November

5. Department of Trade and Industry Regional Estimates by Industry Sector (Starts and Stops) for 1982. British Business, 1984, 10 February

6. Department of Trade and Industry Analysis of Sectors of Business by Counties for 1980 to 1983. British Business, 1985, 18 January.

CHAPTER 4

THE NEW FIRM FOUNDERS

According to Wilmer & Hoggard (1983) during the pre-birth environment stages social interactions occur between three groups in society:- (i) the existing active entrepreneur group; (ii) the group which are seriously considering the possibility of becoming entrepreneurs (potential entrepreneurs) and (iii) a group which may be considered as inert in the entrepreneurial context.

These environmental stages are long and extremely complex with interactions of information between each group which may cause a continual relocation of individuals in terms of their attitude to entrepreneurship. These complex interactions between groups in society will be related to variables such as age, sex, class ethnic, religious background, education, employment experience and the industrial and economic structure of the environment.

In order to identity 'the supply of new firm founders' it is necessary, therefore, to examine both the personal characteristics of new firm founders and their attitudes and motivations.

The present survey of new firms formed in S. Wales (1980-85) will be compared with three studies of other regions of the U.K. and it is important to take into account the nature of samples in each. These are displayed in Table 4.1.

The characteristics of new firm founders will be discussed under the following headings:-

a) Age
b) Educational qualifications
c) Previous work experience
   - Type of business
   - Size of business
   - Ownership of business
d) Geographical mobility
e) Motivations of founders
   - Reasons for leaving last employment
   - Reasons for becoming self-employed

Table 4.1 Details of Samples used in Comparible Surveys

Study	Region	Date	Sample Size	New Firm Coverage
Survey	S. Wales	1985	57	Manufacturing and professional/business services. Independents only.
Storey	Cleveland	1977	301	Manufacturing and N.E. England professional/business services, including subsidiaries, branch plant moves.
Cross	Scotland	1978	191	Manufacturing up to 10 years old. Independents only.
Mason	S.Hampshire S. England	1981	52	Manufacturing - independents only.

A. Age of New Firm Founders

Are there certain age groups which tend to have a higher propensity for self employment? If so, what factors associated with age are important in the decision to start a new business?

Cross (1982) reviewed a number of studies which gave figures for the average age of businessmen and concluded that the studies tend to agree (far more than they disagree), in that the average new firm founder is 30-40 years old.

The mean age for the Scottish survey was 32.3 years, whereas Boswell (1972) reported a mean of 36 years of age. In fact the average age of founders in the present survey

was between these two at 35.2. However, the simple average age of founders when first starting a business masks more significant differences in the distribution of ages.

Table 4.2 compares the ages of founders in the present study with samples of Scotland and the South of England. For both Scotland and Wales only around 10% of entrepreneurs become self employed before the age of 25 and again for both areas only slightly over a quarter start a business before they are 30. The two samples differ markedly, however, as in the over-30 age group Cross found that 53.4% of Scottish new firm founders were in the 31-45 band and Mason found a similar picture for the South of England. In Wales, however, 65% of the sample started between these age groups. In other words the formation of a business in Wales seems to be more significantly associated with middle age phenomenon than in either the South of England or Scotland.

Completing the picture less than 9% of all Welsh entrepreneurs surveyed started a business for the first time after the age of 45. The figure for Scotland is almost 20% and for the South of England over 30%. The difference between the present sample and Scotland in the over-45 age group is statistically significant at the 5% level. This may have important implications for differences in motivation to form a new firm across regions (see later).

Before leaving the question of age, Table 4.2 also shows that there are significant differences in start-up ages for male and female entrepreneurs, with 50% of females concentrated into the narrow 36-40 years old band.

The general picture suggests that individuals set up new firms for age specific reasons and that the propensity of potential entrepreneurs to start up increases greatly in the middle age size bands, 30-45. It is clearly important to explain whether this age factor is merely a spurious relationship or a surrogate for experience or some other age specific reason.

Liles (1974) explains the age specific nature of entrepreneurship in terms of how an individual perceives his own 'effective capacity' to start a business. This

Table 4.2

AGE OF NEW FIRM FOUNDERS

Age Band (Years)	Present Study (1) No				Cross 1978 (2)		Mason (3)	
	Male	Female	All	% Wales Survey		% Scotland Survey		% S. England Survey
Less 25	5	1	6	10.5		10.2		n/a
26-30	7	2	9	15.8		17.4		n/a
31-35	11	1	12	21.0)		16.2)		(
36-40	7	6	13	22.8)	64.9	22.8)	53.4	(53%
41-45	10	2	12	21.1)		14.4)		(
46+	5	-	5	8.8		19.2		82%
All Ages		57	(100)			(100)		-

Source: (1) Survey (South Wales, 1985)

(2) Cross M., New Firm Formation and Regional Development, 1981, Table 8.6

(3) Mason C.M., New Manufacturing Firms in South Hampshire: Survey Results, No.13, Discussion Paper, Department of Geography, University of Southampton, 1982.

effective capacity is made up of two conflicting effects.

i) How ready he sees himself for undertaking such a venture, and

ii) How many obligations or distractions he sees as holding him back (restraints).

Readiness or self-confidence to start a business accumulates over time, most people learning rapidly in their early careers and although the rate of learning may diminish over time the cumulative effect is of an increasingly ready or competent individual. While readiness increases with age so too do the restraints, family and financial obligations increase (according to typical life cycle development). Thus, according to Liles hypothesis, effective capacity made up of readiness and restraints will usually be increasing until the individual reaches his early 30's, after this, however, overall effective capacity begins to decline as the importance of restraints and distractions increase with age. The result is a strong tendency for entrepreneurship to be an early middle age phenomenon.

B. Educational Qualifications of New Firm Founders

It was clear from Table 3.1 that Wales has the highest proportion of the population going on to degree courses of any of the regions of the U.K. Two aspects of this concern us, first, does this mean that the rate of firm formation is likely to be higher ceteris paribus in Wales and secondly, what are the implications of educational qualifications for the development of firms?

Unfortunately, the relationship between educational qualifications and start-up rates is unclear[1]. Although a comparison of education levels of new firm founders (Table 4.3) in different surveys is useful, both Storey (North

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1 Testing of the relationship has confused the two aspects of: (a) future business prospects and (b) rate of start-up, leading to conflicting results, e.g. compare Fothergill, Gudgin and Brunskill (1979) with Whittington (1983).

Table 4.3 EDUCATION LEVELS OF NEW FIRM FOUNDERS

Qualifications	1985 Survey		1982[1] Storey		1982[2] Mason	
	No	%	No	%	No	%
Degrees	7	14.0	10	6.5	n/a	7
Trades Qualifications	19	38.0	65	42.4	n/a	n/a
Miscellaneous	5	10.0	29	18.9	n/a	n/a
None	19	38.0	49	32.0	n/a	n/a
All	50	100%	153	100%	52	100%

Source: (a) Survey - (South Wales, 1985)

(b) Storey D.J. Entrepreneurship and the New Firm, 1982, p.107.

(c) Mason C.M. New Manufacturing Firms in South Hampshire: Survey Results No.13 Discussion Papers, Department of Geography, University of Southampton, 1982, p.14.

Note: Classification of qualifications is made for direct comparisons with Storey (1982), whose sample most closely corresponds with this survey - manufacturing and business/professional services.

Miscellaneous qualifications include O Levels, company training courses, HNC, etc.

(Storey 1982, pp.107)

East) and Mason (South Hampshire) agree that only between 6.5 - 7% of all new firms are founded by people with a degree (and/or professional qualifications). In keeping with the figures for Welsh school leavers who enter degree courses. However, 14% of the firms surveyed in this study were founded by graduates. On the other hand, relatively more Welsh firms tend to be founded by entrepreneurs with no formal educational qualifications compared to the North East and Scotland.

The role of educational qualifications to the performance and growth of new firms will be examined in detail in Chapter 8.

C. Intra-Industry Birth

A number of studies have provided evidence that new firms are generally started in those industries in which their founder previously worked. Storey for example quotes Oxenfeldt, "the founder is likely to select for the establishment of the new firm the industry which is most accessible and to which his prior business experience is related". Storey (1982, p.65).

The hypothesis certainly sounds plausible although certain factors such as redundancy or closure may act in the opposite direction. Storey reports on two studies: the first, Gudgin (1978) found that a striking 85% of entrepreneurs in the East Midlands claimed to have experience in the industry in which they eventually established a firm. Secondly, Johnson and Cathcart (1979) found that 57% of founders in the Northern region established a firm in the same industrial order in which they were formerly employed. (See also Oxenfeldt 1943 and Cross 1981, p.235).

In order to derive evidence on the relevance of this hypothesis for the Welsh small firm sector, Table 4.4 presents a matrix of intra and inter industry firm formation. Each row represents the destination of the new firm (according to the hybrid classification shown) and are cross referenced against the source industry of the founder, that is the industry he was employed in prior to setting up.

Since the industrial classification adopted is generally much broader than individual orders of the SIC it might be expected to have a high intra industry score (as shown by the diagonal). Surprisingly however, only 37% of the overall sample for S. Wales were started in the same industry as the source industry of employment. This is much lower than recorded by any of the previous studies for other regions.

The intra industry relationship is strongest in the metal goods industries (mechanical engineering/fabrication and other metal goods) where over 50% of founders stayed in the same industries.

Despite being the broadest grouping of MLH's, there was no relationship between the same industries for the textiles and other manufacturing group with only one of the nine firms founded in this group having intra industry origins. There was little or no association of the kind hypothesised in the business services sector. More generally, about a quarter more new firm founders came from service sector employment outside the destination business classified for this study (notably employment in Government and local authorities), which is similar to the 28% of founders in non-manufacturing activities reported by Cross (1981, pp.233) for Scotland.

Mason (1982, p.8) hinted at the lack of a clear intra industry relationship for South Hampshire, noting that while over a quarter of all employment in the county was accounted for by the electronics industry, just 11% of new enterprises were set-up in this activity.

In conclusion, it seems that there are considerable variations in the rate of intra industry birth geographically, which may be caused by other aspects of the industrial structure (such as the size distribution of firms in each sector). These will be studied in the next section, but in the context of this study the intra industry hypothesis does not seem to be as relevant in explaining the new firm formation process in Wales as it is in the East Midlands or the Northern region.

Table 4.4 SOURCE MATRIX FOR ENTREPRENEURS

Destination

Business	Source Industry										
	1	2	3	4	5	6	7	Other Man.	Other Services	Other Sector*	All
SIC 1	5	-	1	-	-	-	-	-	1	1	8
2	2	4	-	-	-	-	1	-	-	-	7
3	-	2	1	1	-	1	-	1	2	1	9
4	1	-	-	2	-	-	-	-	-	2	5
5	-	2	-	-	3	1	-	-	-	1	7
6	1	2	-	-	-	3	1	1	1	1	10
7	1	1	-	-	-	1	2	-	-	3	8
Other Manufacturing	-	-	-	-	-	-	-	-	-	-	-
Other Services	-	-	-	-	-	-	-	-	-	-	-
Other	-	-	-	-	-	-	-	-	-	-	-
All	10	11	2	3	3	6	4	2	4	9	54

Source: Survey (South Wales, 1985)

Notes: * Other: Non-Private Sector

See also Classification for industries 1 to 7 above.

Previous Employment Experience of Founders: The Incubator Hypothesis

The incubator hypothesis here is meant to be related solely to the size of the incubator, specifically that small firms will be more efficient at nurturing potential entrepreneurs who subsequently set-up a business than large firms.

This hypothesis is usually based on the argument that people employed in small firms will tend to have less job security and a broader experience of all aspects of the business, rather than the more limited range of work experience found in the specialised larger concerns. In addition to this, we have already noted in Chapter 4 that wage differentials may lead to firm formation and that for seemingly the same work, small firms pay lower wages on average than their larger counterparts. (Gudgin et al 1979, p.16). This, though for different reasons, would also be observed in empirical studies of incubator organisations.

Table 4.5 shows the size of incubator organisations reported for the present study. Only about 30% of the founders were employed in small firms immediately prior to start-up compared to 47% of founders who were from large firms (over 200 employees) and a further 13% from non-private sources, such as local Government.

The above figures take no account of the absolute numbers of employees working in different sized firms in any region. In order to do so spin-off rates are usually calculated. These are relative indices of the productivity of entrepreneurs from firms grouped according to size.

Gudgin (et al 1979, Table 7) showed that in the East Midlands the rate of spin-off of new firm founders is 11.9 times as high for incubator firms, with less than 25 employees, as it was for large firms with over 250 employees. Similarly for Scotland, Cross (1981, Table 221) found a rate of 7.37, moreover the spin off rate was declining continually with size of incubator plant.

Table 4.5 SIZE OF INCUBATOR ORGANISATION BY INDUSTRY TYPE OF NEW FIRM

Destination \ Source Firm	Small	Medium	Large	Other	All
1	3	2	3	-	8
2	3	-	4	-	7
3	2	1	6	-	9
4	1	-	2	2	5
5	2	1	3	1	7
6	4	1	4	1	10
7	1	1	3	3	8
All	16	6	25	7	54

Source: Survey (South Wales, 1985)

Industry Classification used: -

1. Mechanical Engineering, Fabrication/Machinery
2. Other metal goods
3. Textiles and other manufacture
4. Printing and paper
5. Wood, Furniture/articles
6. Other Services
7. Business Services

The spin-off rates for the Welsh sample are given in Table 4.6[1], where the base used is the size distribution of manufacturing employment taken from the database (SWISS, Appendix A). It is clear that the rate of new firm founders coming from small firms is out of all proportion with the percentage of manufacturing employment in that size group. The index of spin-off rates is about 2½ times as high as it is for incubator firms employing more than 200 people.

Unfortunately, direct comparisons are not possible with this study because the size bands differ (respondents were asked to classify their previous employment into three groups small (less than 50); medium (50-200) and large (200+). In general, most were unsure of the exact numbers employed in the incubator making any further sub-division impossible.

Although this is lower than any of the studies previously mentioned, this may simply be due to the larger size band 1-50 used in this study compared to the 1-25 employee classification used elsewhere.

Care must be used in these observations since most studies have used the size distribution of existing manufacturing firms with no account being taken of the service sector as a source for entrepreneurs, yet around a quarter of all manufacturing founders were previously employed in the service sector in Wales to the extent that the service sector is concentrated in small firm incubator plants to new firm formation may be underestimated.

Table 4.6 also shows a result which is at odds with previous studies for the spin-off rates of medium sized firms. In fact only 6 of the 54 firms (11.1%) claimed to have come from medium sized firms, but employment in this size group is about a quarter of all manufacturing

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1 The number of incubator firms classified into size groups are divided by the total employment in a region in that area to get a rate per 1000 employees. The rates are then indexed with 1.00 being the lowest (base).

Table 4.6 NEW FIRM SPIN-OFF RATES BY SIZE OF PRIVATE SECTOR INCUBATOR PLANTS in South Wales

Size of Incubator (employees)	(a) No. of Cases	%	(b) % of all manufacturing employment	(c) Relative index of spin-off
Small 0-50	16	29.6	15.3	4.43
Medium 51-200	6	11.1	24.1	1.00
Large 201+	25	46.3	60.0	1.75
Non-Private Sector	7	13.0	-	-

Source: (a) Survey (South Wales, 1985)

(b) DBase (See Appendix A, Table A.1)

employment. Even the spin-off rate for the largest firms (200+) are 75% higher than those reported for the medium sized concerns. Previous studies including those of Johnson and Cathcart (1979), Cross (1981) and Gudgin (et al 1979) had shown a continuous decline in spin-off rates with increasing size of firm (with medium sized firms - 26-100 or 101-250 employees having higher spin-off rates than the large firm sector).

Apart from the obvious doubts raised by the problem of inadequate sampling, there may be good reasons why the fertility of this incubator plants might display the particular features shown in this study.

The importance of gaining a general overall experience of business (suggested as being the main reason for the incubator hypothesis) may fall substantially after a certain threshold size is reached and thereafter remain relatively constant. Other factors to that of practical experience may also be related to firm size. For example, 'frustration' was shown by Cross (1981, p.205) as being the second most important reason for founders leaving previous employment before setting up. This 'frustration' may include the despair caused by the lack of alternative employment opportunities (Storey, 1982 p.110), but also the caged managers and frustrated projects inherent in large firms suggested by Thomas (1984), both of these may be thought of as increasing with firm size.

For small firms the level of frustration may be relatively insignificant and the 'practical experience' factor is likely to dominate the rate of new firm formation. As the size of incubator organisation increases, however, some threshold point is likely to be reached where the further increase in firm size is unlikely to lead to significant reduction in environmental business experience and so the fall in the number of potential entrepreneurs is less rapid, possibly becoming constant if this threshold was at the level of employment we call 'medium sized firms', then the rate of formation may be substantially lower than for small firms.

As the size of firms increase still further, other forces than the business experience hypothesis may become operative. For large firms this frustration element may now be the dominant of the two opposite effects. The rate

of firm formation may then be higher than that for medium sized firms because of the frustrated workers and 'caged' managers syndrome.

Ownership Status of Incubator Plant

The incubator hypothesis based on the premise that 'a practical experience of entire business' is important to new firm founders and that such experience is highly concentrated in small firms, will also have other dimensions. Cross (1982, p.224) suggested that the ownership status of an incubator plant could also be important, since the status of a plant could be used as a possible indication of the nature of the management control and the level of management position with the firm. Since independent plants may be expected to have a higher number of risk-taking positions than a branch plant, then one would expect these independent firms to have a greater propensity to foster new firm founders than subsidiary plants. Cross was unable to find any evidence of this proposition, however, it is important that the possibility of an ownership (or status) factor is studied in the Welsh context because Wales has become 'a land of branch plants'. Only about 30% of private manufacturing employment in S. Wales is in independent plants. (Table A.1., Appendix A).

Table 4.7 makes a further sub-division of incubator plants of the new firm founders in the survey according to its status - independent plants and subsidiary plants. The percentage in each size group found in the sample are given in parenthesis and are compared with the actual percentage of total manufacturing employment in subsidiary and independent firms taken from Appendix A.

Overall, independent incubators seem to have higher spin-off rates than subsidiary plants. Small independent incubator plants accounted for about 94% of our sample, but only 75% of total manufacturing employment in the region. The most significant difference seems to occur in the medium sized incubators where medium sized independent plants have a higher spin-off rate than their subsidiary counterparts. Unfortunately, only about a quarter of all firms in the size group (51-200) are independents and this may go some way in explaining the low overall spin-off rates in medium sized incubators previously discussed.

Table 4.7

Size and Ownership Status of Incubator Plants

	INDEPENDENT PLANTS			SUBSIDIARY PLANTS		
Employees Size	No. of Cases	(a) %	(b) % Total Employment	Nos.	%	% Total Employment
Small 1-50	15	93.75	75.3	1	6.25	24.7
Medium 51-200	4	66.6	25.8	2	33.3	74.2
Large 201+	1	4	12.5	24	96	87.5
All	20		28.3	27	7	71.7

Source: Survey (South Wales, 1985)

Notes: (a) % of each size group by status

(b) % of total manufacturing employment in each group for Industrial South Wales (See Appendix A).

In conclusion, the present survey does suggest tentative links between the ownership status of the plant as a surrogate for the type of management structure in the firm and the efficiency of incubators in 'producing' new firm founders.

Previous Experience of Founders in a Small Business Environment

Intimately linked with the incubator hypothesis is the experience of new firm founders in a small firm environment. This experience will not necessarily be the result of working in a small firm immediately prior to start-up. Some founders may have worked in small businesses and subsequently moved to work in large firms before founding a firm. Furthermore, some may have helped out occasionally in small businesses run by friends or relatives and so experience of business may not simply be related to previous employment as such. New firm founders were therefore asked whether they considered themselves to have had any experience of a small business environment before start-up and which had relevance to their start-up decision. Interestingly, 3 of the founders who had worked in a small firm prior to starting up did not consider that as being an experience of a small business environment, although overall 45% of the entire sample claimed to have such experience.

Finally, of the 38 new firm founders interviewed who were not previously employed in a small firm, 12 (32%) had some other form of contact or experience in the running of a small business.

In terms of previous experience in founding a business, Cross (1982, pp.219) in his Scottish survey, found that this was rare (88.5% had no direct experience of founding a new company before). In contrast Mason (1982, pp.13) found that a considerable number (42%) of founders in South Hampshire had previous experience of starting a business. One quarter of the new firm founders in the present study had been previously involved in other start-ups.

Of the 15 entrepreneurs who had previously started a business before the present one only 2 were self-employed immediately prior to start-up and the majority of the others were last employed in large firms before setting up - possibly as a temporary measure in an attempt to build up capital to start-up once again.

D. Geographical Mobility of New Firm Founders

Having considered age, sex and educational qualifications, it is interesting to review the evidence on the geographical mobility of new firm founders. This will have a direct bearing on the location decision for new firms (which will be discussed in Chapter 7),but for now we merely seek to identify the source regions for entrepreneurs in Wales.

Cross (1982 pp.227-233) noted that while most of the literature had stressed the local nature of new firm founding, certain supplying regions (suppliers of new firm founders) could be identified, for Scotland, The South East and East Anglia alone accounted for over 50% of all immigrating entrepreneurs.

Two aspects of 'supplying regions' can be identified. First, the immigration of people from the county of their birth into a region not necessarily related to the decision to start-up and secondly, the movement of firm founders immediately prior to start-up (residence). Each of these has different implications, but the two are not always separated in the literature.

Forty two percent of all entrepreneurs interviewed in the present study were not Welsh-born, two founders were born abroad, two were Scottish and 19 were born in England. (See Table 7.8A).

Table 4.8A LOCATION OF NEW FIRMS BY COUNTY OF BIRTH AND RESIDENCE OF FOUNDERS

Entrepreneurs/ County of Birth	Location of New Firm					
	Mid Glam	S. Glam	W. Glam	Dyfed	Gwent	All
Mid Glam	8	-	1	-	1	10
S. Glam	-	4	-	-	2	6
W. Glam	-	-	5	1	1	7
Dyfed	-	1	-	3	-	3
Gwent	1	-	-	-	2	3
Rest of Wales	1	-	1	-	-	2
England	4	6	5	4	-	19
Scotland	-	-	1	1	-	2
Abroad	1	1	-	-	-	2
All	15	12	13	9	6	55

Table 4.8B

Founders/ County of Residence						
Mid Glam	14	2	-	-	-	16
S. Glam	-	7	-	-	-	7
W. Glam	-	-	12	-	-	12
Dyfed	-	-	-	8	-	8
Gwent	-	2	-	-	4	6
Rest of Wales	1	-	-	-	-	1
England	-	1	1	-	1	3
Scotland	-	-	-	-	-	-
Abroad	-	-	-	1	-	1
All	15	12	13	9	6	55

Source: Survey (South Wales, 1985)

Of the Welsh-born new firm founders there is a strong tendency for the initial location of the start-up to be in the same county as their birth (overall almost 70% displayed this characteristic). However, there is no means to identify the importance of moves out of the county of birth and subsequently back to the same county, to the extent that this does not happen, however, the particular local economic structure may therefore have significant influence on the firm formation process.

Of more relevance, however, is the location of new firm founders immediately prior to setting up the business. Cross found to his surprise that as many as 33% of the entrepreneurs in his Scottish survey had moved into Scotland in order to start-up (Cross 1981, p.229). In Wales the present survey has recorded only 4 out of the 55 responses (7%) that were moves into Wales immediately prior to setting up. (One of these was from France). The bottom half of Table 4.8B reveals that within Wales there is a strong tendency for the initial location of the start-up to be in the same county as the founders were residing in immediately before founding the firms (overall almost 90% displayed this characteristic) and those that did set-up outside their home county travelled less than 15 miles. Once again certain characteristics of new firm founders and the formation process may be significantly effected by the particular local (county) economic environment.

The most significant problem with assessing the importance of this local economic structure however, is the fact that a number of the founders may have had work experience outside his local environment and so his entrepreneurial spirit may have been 'cultured' in a totally different environment. For example, if the 42% of founders not born in Wales had only moved to Wales after spending some considerable working time outside Wales, then the overall sample would not be expected to be closely related to local industrial structure.

In concluding this section it is obvious that the relationships between new firm formation and industrial structure are extremely complex and open to a wide variety of interpretations with much depending on the exact motivations of the entrepreneurs in founding firms. It is to these that we now turn.

The Motivations of New firm Founders

The importance of the elements of industrial structure and personal characteristics of new firm founders discussed above will depend largely on the motivations and aspirations of entrepreneurs.

In order to analyse these motivations new firm founders were asked to respond to two open questions; firstly to explain the reasons for leaving their last position of employment and in a separate question they were asked to identify the reasons for starting their business. The responses in both cases were made in the founders own words and were categorised according to a framing structure (given in Appendix C) after all the interviews had been completed. The resulting categories are discussed in terms of age of the new firm founder, the industry type of the new firm and educational qualifications attained by the founders.

Reasons for leaving last employment (shown in Table 4.9) were the broad 'push' factors of redundancy and closure and are shown separately. The other category includes a number of miscellaneous reasons, notably including end of contract or temporary jobs, students not employed previously and people unemployed for over one year.

Taking into account all the 'pushed' out of a job factors (redundancy, closure and end of temporary jobs) about 43% of all the mentions of reasons for leaving employment were of this sort. This is substantially and significantly more (at the 5% level) than that reported by Cross (1981, pp.211) for Scotland during the period 1968-1977 where only 12.2% could be considered push factors.

Thirteen founders (24%) deliberately left their position of last employment in order to start-up their businesses. Again this seems to be significantly less than that found by Cross although not directly comparable, 55% of his survey left their previous employer of their own accord for reasons of advancement.

The second most important reason given by Cross was frustration (frustration with their previous employment position and prospects), but only one founder mentioned this as a reason for leaving employment in this survey.

Table 4.9 MENTIONS OF REASONS FOR LEAVING EMPLOYMENT BY AGE OF FOUNDER AND INDUSTRY TYPE OF NEW FIRM

	AGE				SECTOR			
Reason	Less 30	Age 31-40	40+	Age All	Metal Manf.	Other Manf.	Service	All
Redundancy	2	6	5	13	3	5	5	13
Closure	2	2	3	7	3	1	3	7
Health	0	3	2	5	0	2	3	5
To Start Up	5	6	2	13	4	7	2	13
Other	6	6	4	16	5	5	6	16
All	15	23	16	54	15	20	19	54

SOURCE : Survey (S. Wales, 1985)

The large differences in the two studies may be largely due to the overall trends in unemployment during the period of study. The period 1968-1977 covered by Cross certainly had much lower rates of unemployment than during the first half of the 1980's and associated with this would be a relative increase in the emphasis on job security, possibly accounting for the larger number of founders who were pushed out rather than pulled out of employment in the present survey.

Despite the differences, Table 4.9 tends to confirm Cross's observation that the desire to start-up (advancement) tends to be restricted to those under the age of 41. The age factor also showed another interesting point, that the push factors (redundancy and closure) of last employment increase with age, with these reasons being given almost twice as often for founders over 40 years of age as those aged 30 or less.

It is important to know if any of these reasons are concentrated in any particular type of new firm classitied according to sector. For example it seems that the push factors of redundancy and closure are distributed reasonably equally across industries of new firm entry, however, a different picture emerges when looking at those founders who left employment specifically to start-up. For the service sector only 2 of the 19 founders mentioned this reason compared to over a quarter of founders of metal manufacturing and other manufacturing firms.

Finally, it can be seen (Table 4.10) that leaving employment to start-up a business as an active move perhaps surprisingly does not seem to be related to educational qualifications of the new firm founders, although the push factors of redundancy, closure and end of contracts are heavily concentrated in the non-graduate groups, with only one founder with a degree being pushed out of his last job (due to the closure of a plant).

The reasons for leaving positions of last employment will not necessarily correspond with the reasons for wanting to set-up and run a small business. It is from these motivations that we can more correctly categorise as push and pull factors for entrepreneurship.

Storey found that only 9% of founders were forced into entrepreneurship and this confirms the broader measure of reasons for leaving last employment used by Cross who found that only 16% were pushed out of employment. In contrast to both of these studies, Table 4.11 shows that at least 30% of all mentions could be described as pushed or forced into entrepreneurship. The specific motivation was that there were no other jobs available.

On the more positive side 43.3% of mentions claimed to be pulled into entrepreneurship with the largest single group in this category being the quest for independence and greater financial reward. 15% of all reasons given for becoming self-employed were to meet a specific opportunity or gap in the market and over 10% claimed that they had always wanted to run their own business, but these were concentrated in the over 40 age group.

As suggested previously the pull motives, particularly independence and greater financial reward, are relatively more important in younger (under 30 years of age) firm founders and the push factor of not having any alternative employment is correspondingly less significant. As a broad generalisation younger new firm founders tend to be attracted into self employment and those founders first setting-up a business over the age of 40 tend to do so because they lack any alternative employment.

Table 4.11 also confirms that the push factors are not industry specific (industry of new entry) being reasonably equally divided between sectors. The most important factor mentioned by founders who had set-up firms in the metal goods manufacturing industry was the opportunity to fill a specific gap in the market, factors relatively unimportant in either the service or other manufacturing sectors.

Only one of the seven graduate founders (Table 4.12) was motivated by the existence of a gap in the market, with most resorting to self employment because of the lack of alternative employment, notably employment at the level of position that they had expected.

Overall the motives for founding a firm reported in this study are less reliant on the positive pull aspects of entrepreneurship and relatively dominated by the forced-

Table 4.10 Mentions of Reasons for Founders Leaving Last Employment - Analysis by Educational Qualifications

Number of Mentions

Reason	Level of Education			
	Degree	Other Qualifications	No Qualifications	All
Redundancy	-	8	4	12
Closure	1	3	4	7
To start-up	2	5	4	11
Health	2	1	1	4
Other	3	4	5	12
All	8	21	18	46

Source: Survey (South Wales, 1985)

Table 4.11 Mentions of Reasons for Starting a Business - By Age of Founders and Industry Type of New Firm

	AGE				SECTOR			
Reason	Less 30	31-40	40+	Age All	Metal Manf.	Other Manf.	Service	All
No other jobs	3	5	10	18	3	8	7	18
Independence/ Money	7	0	3	10	1	5	4	10
Opportunity Gap	3	4	2	9	4	2	3	9
Always wanted	1	1	5	7	3	3	1	7
Other	4	4	8	16	1	10	5	16
All	18	14	28	60	12	28	20	60

Source: Survey (South Wales, 1985)

Table 4.12 Mentions of Reasons for Starting a Business - Analysis By Educational Qualifications

Number of Mentions

Reason	Level of Education			
	Degree	Other Qualifications	No Qualifications	All
No other jobs	3	7	8	18
Independence/ money	-	7	3	10
Opportunity Gap	1	4	2	7
Always Wanted	1	3	3	7
(Miscellaneous) Other	2	7	4	13
All	7	28	20	55

Source: Survey (South Wales, 1985)

into entrepreneurship category than either the North East or Scotland (regions similar to Wales if only in their assisted area status). This, it was suggested may be the result of changes in the overall economic climate (the two previous studies were for firms founded between 1968-1977 for Cross and 1973-1977 Storey, compared to the present survey 1980-1985) rather than purely geographical reasons.

Even a more recent survey by Mason for manufacturing firms in South Hampshire (between 1976-1980) found that ..."new firms in South Hampshire have largely been set-up for positive and opportunistic reasons.." (Mason 1982, pp.15-16). He reported only three (6%) cases where new firms were started because their founder had been made redundant, compared to 24% in the present study (and 30% because there were no other jobs available). Completing the contrast a striking 60% of founders in South Hampshire reported motivations for starting a business which were basically to exploit a market opportunity. Comparable motivations reported in the present survey are only 15% of the total sample.

Clearly this survey suggests that unless these striking differences can be explained solely in terms of differences in location, there was a significant change in the characteristic motivations for new firm founders during the late 1970's or early 80's.

This has a number of implications not only for the effectiveness of Government policy instruments (which may in part be the cause), but also for the general performance and employment prospects of the firm (these will be considered later).

It is possible to make a broad comparison of the firm founding motivations of entrepreneurs between Wales (present survey 1985) and several countries worldwide (ISBS, 1984). The International Small Business Survey (ISBS) provides data on what motivated entrepreneurs to start a business[1]. Of the 10 possible responses we

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1 The ISBS study consisted of a standard questionnaire with closed responses only. For this reason answers are not directly compatible with the present survey, although a broad picture is very much evident.

compare two with the survey for Wales; these are: (a) started a business because I became redundant/was dismissed or fired; and (b) the company I worked for closed down or moved.

In Table 4.13 the two push factors of redundancy and closure are shown for developing countries, (Kenya, Brazil and Indonesia) and the mature, developed economies of the U.S.A., U.K. and West Germany, as well as for Wales which we take a representative of a depressed region of a developed economy. It is clear that push factors (at least as far as redundancy and closure are concerned) are much more important in developed economies causing almost 1 in 5 of all business start-ups in the U.K., U.S.A. and Germany, but only 6% in the under-developed economies.

Based on the present survey, however, it seems that many more entrepreneurs are pushed out of jobs and into self-employment in Wales (and possibly other regions, given assisted area status of developed countries) than in developed countries as a whole. Even with such a small sample for Wales the difference (a factor of 2 above that for developed countries) does seem very large and indeed, it is statistically significant at the 1% level.

In conclusion, a comparison of reasons for leaving last position of employment and the reported motives for starting a business reveals three types of trigger for entrepreneurship. The first and most obvious is the various pull factors of the market leading to about a quarter of all founders leaving previous employment specifically to set-up. In the other extreme 43% of founders were pushed out of employment either through redundancy or closure of plants, of these some 70% were motivated to start their own business because they were unable to find any other suitable job. Finally, the third type of trigger lays somewhere between these two, in that while they may have been pushed out of employment they still had a number of possible alternatives of which entrepreneurship was judged for various reasons including, "I had always wanted to set-up a business of my own", to be the best option. It is doubtful whether many of the new firm founders triggered by the last two methods would have become entrepreneurs if they had not been pushed out of a full time and relatively secure job.

Table 4.13 An International Comparison of Redundancy and Closure as Push Factors to Entrepreneurship

	A	B	A&B
	Redundancy	Closure	Push
Developing Countries [1] (Kenya, Brazil, Indonesia)	2.15%	3.85%	6.0%
Developed Countries [1] (U.S.A., U.K. West Germany)	12.92%	5.48%	18.4%
Wales, A depressed [2] region of a developed country. (Industrial S. Wales)	24.1%	13.0%	37.1%

Source: Survey (South Wales, 1985)

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CHAPTER 5

FINANCE - AN ENTREPRENEURIAL SCREENING PROCESS

Having identified a number of the more important environmental factors towards new firm formation, inlcuding industrial structure and personal characteristics of founders, the next stage is to analyse the screening processes leading up to the emergence of a new business and the nature of these businesses, particularly in the coordination of resources, which is the very essence of entrepreneurship. (Casson 1982, pp.23-25).

The entrepreneur emerging to become a founder and the subsequent controller of a firm will have been subjected, in his earlier life, to a wide ranging group of conflicting influences both on his personality and his economic development.

A certain number will come forward and act as private entrepreneurs starting and running a firm. Before reaching this stage, however, prospective entrepreneurs will have gone through a process of screening, this screening may simply be self assessment (Stancill 1981 and Timmons 1979) but will usually include a third party judgement on the entrepreneur and his proposed venture.

The third party screening process is most evident when the entrepreneur applies for financial support for his project. When this occurs there can be three outcomes; (1) application accepted and support given; (2) project modifications and (3) complete rejection of project. (Even at the stage of acceptance the entrepreneur may still not continue the start-up process). In other words the filtering down of the number of potential entrepreneurs as a result of interactions in the environmental stages continue by a further, more readily identifiable screening process, that of the availability of finance - and all this occurs before the ultimate form of screening - which is the reactions of the market to the venture.

The purpose of this chapter is to analyse the role of the availability of finance in the overall screening process. The main limitation in this and almost every other survey of new business start-ups, is that the characteristics of the business and the entrepreneur will be of those who have actually succeeded in passing through the financial and other screening processes. (The characteristics of those who fail to pass the financial screen would have to be the subject of a separate study).

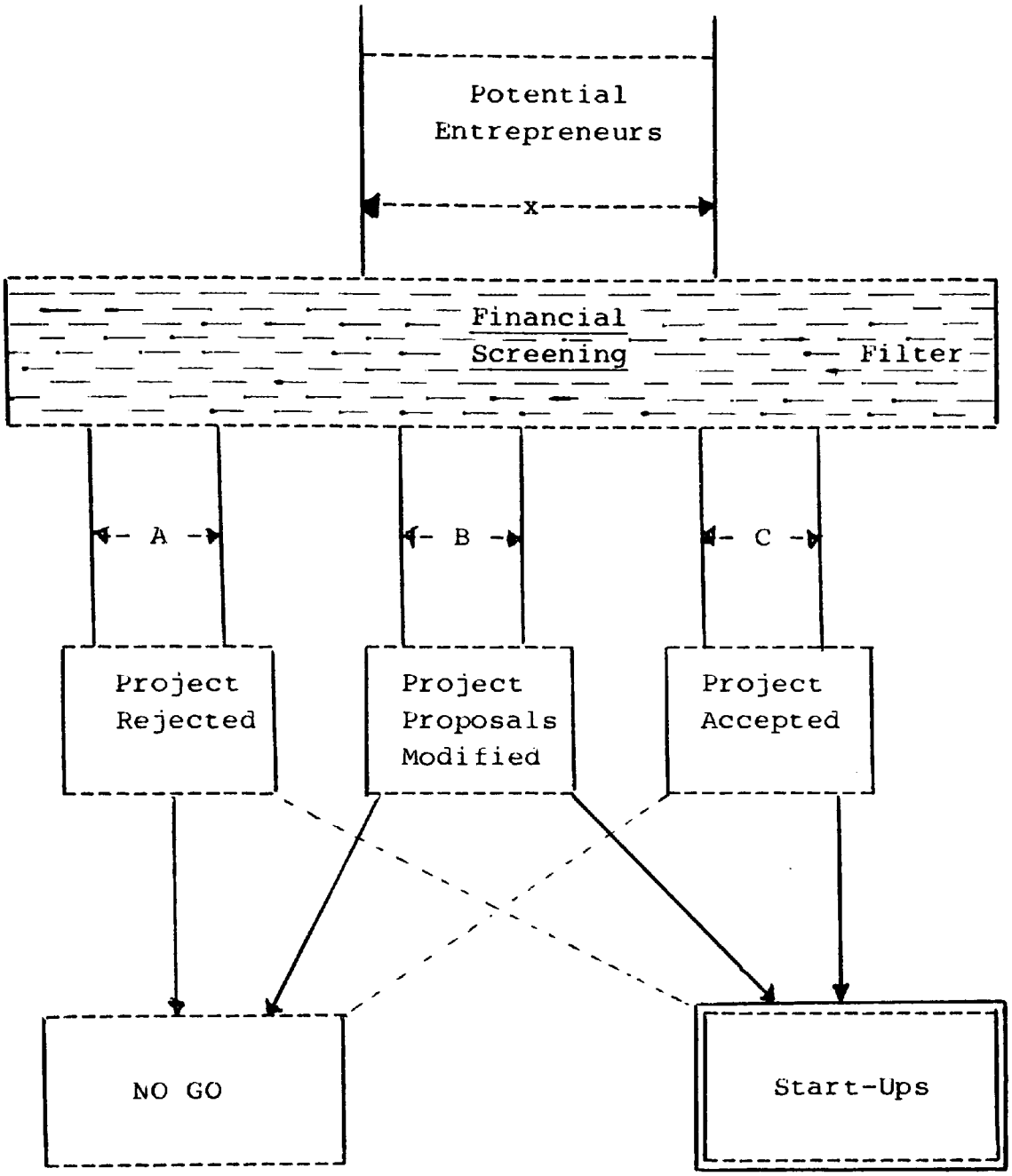
The securing of finance for a new venture is only one of the many entrepreneurial tasks that have to be coordinated before trading can occur. The very nature of financing, however, requires it to be treated as a special case of the coordination process.

A number of other aspects of the coordination process will be examined in the next chapters, highlighting the nature or structure of coordination at the start-up stage and changes in attitudes, policies and organisation in response to the early feedback of market signals.

When analysing the importance of finance in the formation of a new venture it is apparent that the role of the entrepreneurial function may become confused with the role of the provider of finance. Kirzner (1979, Ch.3) notes that economic theory has suffered from a failure to identify the entrepreneurial role separately from the role of capitalist. In fact it is probably easier to separate but by no means independent the two distinct functions in theory than in practice.

Most studies (including the present survey) have shown the dominant position of personal resources of founders used to start a new firm. Unless an entrepreneur is able to provide some of his own resources, if only to demonstrate personal commitment to third party financial backers, it is unlikely that he will be able to raise finance from an external source. (CBI, 1982, pp.20-21), (Mogano, 1980, p.24). In practice then the two roles are intimately linked.

Figure 5.1 THE FINANCIAL FILTERING OF ENTREPRENEURS



In what follows we will be considering the importance of the financial screening process to the supply of new firm founders since it is effectively this which ensures that the role of the entrepreneur is also, at least in part, the role of the financial backer.

The importance of the financial screening process is intimately linked with the importance of barriers to entry. The larger the initial capital investment involved - a function of the type of industry, the more likely a founder is to need outside finance of some sort. While trying to obtain this external backing an entrepreneur is likely to have to satisfy backers on a number of important criteria. The criteria involved are the very essence of the financial screening process (and will be considered in depth later). The screening process is effectively a filter, allowing those entrepreneurs with 'viable, promising' ideas (third party judgement on the entrepreneur) to go ahead while 'other' applicants will be turned down, probably forced to modify their proposals, try for backing elsewhere or drop the project altogether. The filtering down can be illustrated in Figure 5.1. We are only considering the financial screening process, but it is recognised that potentially the self assessment screening process is more important in terms of filtering down the total population to the potential entrepreneurs seeking outside support represented by the flow X in Figure 5.1. We have also excluded from the diagram those potential entrepreneurs who do not require financial venture backing and therefore do not necessarily go through the formal financial screening process.

Clearly, given a fixed supply of entrepreneurs, the important elements in the diagram for the supply of new firm founders are the relative magnitudes of the flows A,B and C. (It is also important to identify the proportion of projects not accepted which go ahead anyway). In order to get some idea of the importance of the filter (or screen) it is, therefore, necessary to analyse the nature of the financial screening process, what are the organisations involved and the behaviour adopted by them?

Before discussing these in the context of the present survey, some general indication of the degree of filtering can be given.

1. In 1982 the Economic Intelligence Unit conducted a U.K. survey of the unemployed (EIU 1982) and found that a very high proportion (34%) of all unemployed persons had thought about setting up their own business, suggesting that there were over one million potential small businessmen among the unemployed. When asked why they had not actually gone ahead to become self employed, by far the most important reason (72%) was lack of finance, cash or capital. The overwhelming feeling was that they would not be able to find the money. (EIU, 1982, pp.50-52).

2. The level of refusals for applications of finance is quite high, particularly from the private venture capital firms, e.g. Timmons (1980) found that only 3% to 7% of all proposals to venture capital sources in the U.S. for start-up (or ongoing finance) are actually funded. Given the increasing difficulty of financing start-ups and growth out of personal wealth or retained profits, it seems likely that such developments will in future depend increasingly on the injection of finance from outside to supplement the intitial investment of the founders. (Bolton Committee, 1971, p.153).

Together, the last two points suggest that the financial screening process does have very significant effects on the numbers and types of new firms founded and on the observed characteristics of the founders themselves.

Start-Up Capital: Size and Sources

Before considering in detail the types of screening that can occur in the search for outside finance, it is necessary to analyse the initial capital requirements of new ventures covered by this survey and the methods and sources of financing these.

Cross (1982) obtained data on the size of start-up capital for 180 Scottish manufacturing firms. He found that the average investment was £12,856 (ibid, p.242) The equivalent figure for the present survey is £12,010

Table 5.1

SOURCES OF FINANCE

ANALYSED BY LEGAL TYPE AND INITIAL START-UP CAPITAL

Figures in parenthesis are percentages

Mentions of Source by New Firm Founders								
Size Initial Capital / Source	Grant	Personal Savings	House Mortgage	Personal Loan or Gift	Bank Loan	Bank Overdraft	Financial Partner	All
£1,000	6	16 (48)	-	1	1 (5)	4	5	33
£1,001-£2,500	2	8 (35)	2	1	2 (9)	7	1	23
£2,501-£5,000	2 (39)	9	2	1 (7)	2	5	2	23
£5,001-£10,000	3 (28)	7	3	2 (8)	4	4	2	25
£10,001-£50,000	- (30)	7	5	1 (9)	3	6	1	23
£50,000+	2 (28)	4	-	1 (3)	2	1	4	14
All	15	51	12	7	14	27	15	141
Sole Trader	7 (11)	24 (37)	8 (12)	4 (6)	4 (6)	15 (23)	3 (5)	65 (100)
Partnership	3 (6)	17 (35)	4 (8)	2 (4)	5 (10)	8 (36)	10 (20)	49 (100)
Cooperative	1 (16)	1 (32)	- (3)	- (3)	2 (19)	- (10)	- (16)	4 (100)
Limited Co.	4	9	1	1	4	3	5	27
All	15 (10)	51 (35)	13 (9)	7 (5)	15 (10)	26 (18)	18 (12)	145 (100)

however, direct comparisons are misleading for a number of reasons. Firstly, the present survey includes 17 firms in the service sector which in general have lower start-up capital requirements than manufacturing firms. When these are excluded the mean investment in the present survey is £14,443. Secondly, Cross does not seem to have indexed the capital investment in real terms (and over the period of his study, 1968-77, the RPI rose substantially). Finally, calculating his mean figure at 1985 prices we obtain £26,344. This compares with real (1985 prices) mean investment for manufacturing firms in the present survey of £15,800. (Clearly there would be an even greater difference if the Scottish figure had been indexed).

The mean start-up figures, however, do not provide an indication of the true picture being distorted by a few firms with substantial (£100,000+) start-up investment. (Almost 40% of firms in this survey started with less than £2,000). Although still a rough guide, the median start-up capital is probably more representative. Lloyd (et a 1983) provides median figures for start-up capital of firms in South Hampshire, £8,487 and the North West, £7,072 (both adjusted to present survey, 1985 prices). The equivalent figures (medians) for Wales in the present survey is only £3,000.

Clearly the start-up capital involved is substantially less for new firms in Wales in the 1980's than for Scotland, the North West or the South of England during the 1970's. While some of this may be due to the high level of heterogeneity of business start-ups, other reasons such as the relative importance of push factors in entrepreneurship between the surveys (see Chapter 4) and differences in the availability of finance may be important.

Not unexpectedly, Table 5.3 shows that sole trader firms generally have lower initial capital requirements than partnerships and new limited companies are significantly more endowed with launch capital than the rest of the new firms.

Interestingly, 3 out of the 9 firms which were incorporated at start-up only used one source of finance (personal savings), their Limited status obviously not in

response to increase the avenues for obtaining outside finance. On the other hand, all other Limited liability used more than 3 sources of finance compared to both sole traders and partnerships, where over 50% used 2 or less sources.

In light of the above it is most surprising to find that there was a larger number of sources of finance used in setting up a new enterprise in Wales than in Scotland. Cross (1981, p.237) found that almost 44% of his sample only used one source of finance. This is significantly higher at the 5% level than the 16% of new firms using only one source in the present survey. This difference is also shown at the opposite end where around a quarter of new firms in Scotland used 3 or more sources of finance. Mason (1982, p.19) also reported just over half of the firms in South Hampshire made use of only one source of start-up finance. This suggests that relatively more firms in Wales go through the financial screening process than those in Cross's Scottish survey, although the smaller capital sources involved in new Welsh businesses may make the screening process less stringent.

The multiple source nature of new Welsh firms may also have important implications for the subsequent performance of the firm. Storey (1982, p.152) found that those firms in his sample (for the North East of England) with the highest employment were the most likely to have started with only a single source of finance and those with the smallest employment were more likely to begin with multiple sources.

Table 5.4 shows the initial capital requirements by the labour employed at the start-up stage (investment/employment). This effectively shows the initial capital intensity of different size (by employment) of new firm. This is important because it gives some indication of the spreading of fixed start-up costs and is significant in obtaining public sector financial support, particularly regional development grants.

Although the average start-up capital per head is high for start-ups involving two labour units rather than one, (i.e. the founder), those starts using more than two workers have substantially lower initial capital

intensities. It is notable, therefore, that just over 80% of the new firms were started with two or less people employed and were not, therefore, generally attempting to spread their start-up capital. Clearly a number of other factors may be involved, not least of these will be the perceptions of risk.

Sources of Finance

It has already been noted that since new firm founders in the Welsh survey tend to use a greater number of sources of funding than was found by either Cross or Storey. (Table 5.2 confirms this). However, before discussing the nature of the screening process it is necessary to look at the types of source of finance used in new firm formation.

The most important source of finance for new Welsh firms (as indicated by mentions and not the amounts involved), was personal savings (Table 5.2). This is compatible with most other studies in the U.K. and U.S.A. (See a comparison of studies in Cross 1982, p.239). However, there is a significant difference in the relative degree of importance between personal and outside sources.

In the present survey just over a third of mentions were of personal savings compared to 50% and 44% for the North East and Scotland respectively[1]. More generally of the 11 other studies reviewed by Cross (ibid.) only one had a similarly low dependence on personal savings. Correspondingly, although Cross reported that the clearing banks play a minor role in supplying finance to new companies, 28.28% of firms in this survey used these sources. It is also interesting to note that not one of the new ventures in this study claimed to have used a finance company, i.e. non-clearing bank financial institution and only about 1 in 20 new firms seem to have used these sources in the two other studies.

An important difference is evident when comparing source of start-up capital and finance for existing small firms in general. There have been no studies of business start-ups that have noted an important role of leasing or hire

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1 The difference is significant at the 5% level.

Table 5.2 MENTION OF SOURCES OF FINANCE USED IN SETTING UP A NEW FIRM - A COMPARISON OF THREE U.K. STUDIES

Source \ Study	Wales Survey (a) No.	%	North East (Storey) (b) No.	%	Scotland (Cross) (c) No.	%
Personal Savings	51	(35.93)		(50)		(44.02)
Home Mortgage/Security	13	(8.97)		(6.96)		(4.62)
Loans or gifts from friends & relatives	7	(4.83)		(6.96)		(2.45)
Local bank loan	14	(9.66)		(25.32)		(18.21)
Local bank overdraft	27	(18.62)	28.28			
Total number of sample mentions	145	(100)	158	(100)	368	(100)
Average number of mentions per firm	2.54		1.37		1.93	

Source: (a) Survey (South Wales 1985)

(b) Storey D.J. Entrepreneurship and the New Firm 1982, Table 8.3

(c) Cross M. New Firm Formation and Regional Development 1981, Table 8.29

purchase in providing initial finance. This is perhaps surprising in the light of the Bolton Committee Report (1971, pp.168-171) which found that installment credit was an important source of medium term finance for business - between 15 to 30% of all finance house advancements were to industry.

Confirming this view a study of 189 small, but long established firms carried out by the Economists Advisory Group (1983) found that 27% of firms used leasing and a less popular, but still important 20% of firms used hire purchase. In fact the Bolton Committee reported that:-

> "Hire purchase business is, however, highly competitive and we do not believe that any creditworthy firm should fail to find accommodation". Bolton (1971, pp.170)

A possible explanation of the difference in importance of installment credit to fund start-ups and well established firms is that new firms by definition have no profit record by which to demonstrate to the finance house its ability to generate enough profit to repay the debt.

However, the same argument holds for bank financing and yet the banks accepted this position. Probably the most important reason is the lack of awareness by new firm founders about the possibility of the alternative (non bank) forms of finance. (None of the firms interviewed reported even attempting to obtain start-up finance either through lease or hire purchase).

Clearly the nature of installment credit, i.e. reducing initial capital required, is of particular importance to new small firms and the wider use of these sources may significantly reduce venture funding problems.

Surprisingly the types of sources of funding used are not significantly related to the legal status of the business at start-up. (Table 5.1 for example). Bank finance accounted for 29% of mentions by incorporated businesses and sole traders (and was only slightly lower for partnerships - 26%). As noted previously the Limited status of businesses at start-up does not seem to be an

Table 5.3

START-UP CAPITAL AND SOURCES OF FINANCE - BY LEGAL TYPE OF NEW FIRM

NUMBER OF FIRMS

Legal Type \ Start-up Capital	£1,000 or less	£1,001-£2,500	£,2501-£5,000	£5,001-£10,000	£10,001-£50,000	£50,000+	All	£ Average Capital	Number of Sources of Finance				
									1	2	3	4+	Total
Sole Trader	9	5	4	2	8	-	28	5988	4	13	6	5	28
Partnership	5	3	3	2	1	1	15	8293	2	7	5	3	17
Cooperative	-	-	2	-	-	-	2	4000	-	2	-	-	2
Limited Co.	1	1	1	3	-	3	9	38722	3	-	4	2	9
All	15	9	10	7	9	4	54	12010	9	22	15	10	56

Source: Survey (South Wales, 1985)

Table 5.4 INITIAL CAPITAL REQUIREMENTS OF FIRMS: BY LABOUR EMPLOYED* AND INITIAL CAPITAL INTENSITY

	Number of Cases							
Size Labour	Less 1000	1000-2500	2500-5000	5000-10000	10001-50000	50000+	All	Average Initial Capital Intensity
1	10	4	4	2	5	1	26	£7015
2	5	4	5	1	2	2	19	£7741
3	-	-	-	3	1	-	4	£3292
4+	-	1	1	1	1	1	5	£3680
All	15	9	10	7	9	4	54	£5790
Average Initial Capital Intensity	£530	£1073	£1935	£2936	£8011	£20473	£5790	-

Source: Survey (South Wales, 1985)

* Including Founders

attempt to increase the avenues of obtaining finance, however, it is noticeable that the bank loan is only more important than the overdraft in Limited companies. (New partnerships and sole traders rely very heavily on overdrafts as opposed to bank loans).

The only trend noticeable when sources of finance are looked at by the initial capital requirements is that the larger the start-up finance needed, the less important personal savings become.

In summary the size of start-up capital is generally smaller, the number of sources of funding higher and a lower relative importance of personal savings in new Welsh firms surveyed than for either the North East or Scottish start-ups.

Although only 28% of the mentions in the survey were for outside sources, i.e. clearing banks, this is misleading in terms of assessing the significance of the financial filtering process since it would suggest that less than a third of the projects actually required outside funding for which they would be screened by the third party - bank manager. In fact exactly 60% of the new firms interviewed had approached the banks for either an overdraft or a loan, or both. This suggests (with reference to Figure 5.1), that less than 40% of firms are started without any formal screening of their proposals since some of the firms which had no outside funding may have approached a financial institution and had been turned down. It is worth reiterating here that we are by definition only studying those firms that actually started-up and had survived by the time of interview. Thus, it is clear that the financial screening process may have substantial and significant effects on the nature and quantity of new firms founded.

The next section will attempt to draw more light on the relationship between the screening process and eventual start-up by describing the problems encountered by new firm founders in attempting to raise start-up capital from banks.

Start-Up Finance: The Problems

The problems of financing small firms in general have been well aired, Bolton (1971, Ch.12), Bannock (1981, pp.39-45) and Binks (1979, pp.33-45). Binks, for example, argues (what Bannock has called Binks law) that the smaller the firm the greater the proportionate increase in the capital base required to achieve increases in the supply of the firm's product and yet, the lower its ability to command funding from outside sources. Whilst this may be true for most small firms the setting up of a new firm is likely to generate even more significant problems for founders. However, Mason (1983, p.20) in his study of new manufacturing firms in South Hampshire found that only 21.6% of those firms who had attempted to obtain bank finance, had experienced difficulties in obtaining start-up funds.

The contrast between Mason's results and the present survey is marked. Just over a half (53.84%) of all the Welsh firms responding that had attempted to obtain outside finance at the start-up stage reported problems of some kind or another. New firm founders were asked if they had encountered any problems in raising start-up capital from the banks. The results are illustrated in Tables 5.5 and 5.6.

Apart from the 34% of mentions who reported having no significant problems[1], the most common response was the lack of guarantees that banks were looking for to hedge their risks by seeking security (collatoral), even on overdrafts. In fact, a further 6 founders (10%) specifically refused to offer their houses as security even though the banks had initially asked them to do so. The importance of providing secure guarantees was also noted by Cross (1981) and Storey (1982) incorporates owner-occupied dwellings and their average price into his index of regional entrepreneurship (ibid., pp.189-191).

The next most common problem reported (14%), was that banks lacked confidence in founders business ideas, (they had a "lack of belief in my idea"). It was apparent

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1 About a third of these thought they would have had problems if they had not been helped by parents or a partner in guaranteeing their loans from banks.

Table 5.5 MENTIONS OF PROBLEMS ENCOUNTERED IN RAISING START-UP CAPITAL FROM BANKS - BY SIZE OF START-UP CAPITAL AND LEGAL TYPE OF NEW FIRM

(Figures in parenthesis are percentages down column)

	Initial Capital Required				Legal Structure at Start-Up			
Problems Mentioned	Less £2,501	£2,501-£10,000	£10,000+	All	Sole Trader	Partnership	* Limited	All
No Problems	8 (36)	4 (21)	5 (36)	17 (35)	12 (35)	5 (36)	3 (30)	20 (34)
Lack Guarantees	4 (18)	6 (32)	4 (29)	14 (25)	10 (30)	2 (14)	2 (20)	14 (24)
Not Prepared to offer House as Security	2 (9)	3 (16)	1 (7)	6 (11)	4 (12)	2 (14)	0 (0)	6 (10)
Banks Lack of Belief in Idea/No Confidence in Project	5 (23)	1 (5)	2 (14)	8 (15)	5 (15)	2 (14)	1 (10)	8 (14)
Too High an Interest Premium	2 (9)	1 (5)	0 (0)	3 (5)	1 (3)	2 (14)	0 (0)	3 (5)
Other	1 (5	4 (21)	2 (14)	7 (13)	2 (6)	1 (7)	4 (40)	7 (12)
All	22 (100)	19 (100)	14 (100)	55 (100)	34 (100)	14 (100)	10 (100)	58 (100)

Source: Survey (South Wales, 1985)

* (Limited Companies include two cooperatives)

Table 5.6 MENTIONS OF PROBLEMS ENCOUNTERED IN RAISING START-UP CAPITAL FROM BANKS - BY PREVIOUS EXPERIENCE AT STARTING AND BUSINESS SECTOR

Figures in parenthesis are percentages

Mentions \ Sector	Metal Mnf.	Other Mnf.	Services	All	No Previous Starts	Previous Starts	All
No Problems	4 (36)	10 (33)	6 (33)	20 (33)	15 (33)	5 (35)	20 (35)
Lack Guarantees	2 (18)	9 (30)	4 (22)	15 (28)	13 (28)	2 (14)	15 (25)
Not Prepared to Offer House as Security	2 (18)	0 (0)	4 (22)	6 (10)	4 (8)	2 (14)	6 (10)
Banks Lack of Belief in Idea/No Confidence in Project	2 (18)	5 (15)	1 (5)	8 (13)	6 (13)	2 (14)	8 (13)
Too High Interest	1 (9)	1 (3)	1 (5)	3 (5)	2 (4)	1 (7)	3 (5)
Other	0 (0	5 (15)	2 (11)	7 (11)	5 (11)	2 (14)	7 (11)
All	11 (100)	30 (100)	18 (100)	59 (100)	45 (100)	14 (100)	59 (100)

Source: Survey (South Wales, 1985)

though that this was not banks solely expressing reservations about the proposed project itself, but also in the ability of the founder to carry it out - however, only a few founders mentioned that the banks required a track record which they did not have.

Banks may use two methods of controlling the demand for business finance - the method deriving most attention of course, is the qualitative restriction, restricting their financial backing to those projects which are promising or viable, (by whatever criteria). However, financial institutions also use high interest premiums to cover their perceptions of increased risks and/or to discourage less promising proposals. For example, the small firms loan guarantee scheme now carries a 5% premium above base rate, however, it is interesting that only 3 founders (5%) complained of interest premiums being too high, for the others the importance of actually getting the backing weighed much more importantly than the marginal premiums to be paid once they have secured the financing. The 'other' mentions category in Table 5.5 includes problems such as excessive time taken for discussions and disillusionment with attempts to obtain a small firm loan guarantee.

In order to derive information on the financial screening process at work when new ventures require financial backing from outside sources, it is important to know if any of the problems mentioned by founders are related to particular characteristics. Table 5.5 cross references the reported problems with initial capital requirements and the legal structure of the new venture at the start-up stage. Table 5.6 does this by industrial sector and previous founding experience of the entrepreneur.

Some points to emerge:-

There is no clear relationship between problems of obtaining finance and the initial legal status of the firm, although the main problem of a lack of guarantees is more significant in sole trader firms than either partnerships or limited companies.

There are fewer problems involved in obtaining a relatively small start-up capital or a relatively large amount of capital than for more typical sums (median).

Despite the banks asking for security, only one founder starting in the £2,500-£10,000 group, claimed that the bank had no confidence in his proposal, which is substantially less than for founders in smaller or larger scale start-ups.

As might be expected there were fewer problems with providing guarantees for small sums - less than £2500 start-up investment - although even for these relatively small sums two founders were asked to give the banks a charge on their houses, something they were not prepared to do[1]. (In all 13 founders (22.8%) used their homes to obtain start-up capital either by mortgage or as security).

The firms not reporting any significant problems were not industry specific - ranging from 36% in metal manufacturing to 33% in other manufacturing and services. While relatively fewer service sector projects were the subject of a lack of confidence by the banks (compared to manufacturing projects), their main problem was the lack of security (44% lack of guarantees and not prepared to offer homes as security), probably due to the intangible nature of the assets in the service sector in general.

Finally and perhaps most surprisingly, there were no significant differences in the problems of obtaining bank finance between founders who had previous experience and those that had started for the first time. This is surprising since Mason (1982) notes:

> "as a result of having set-up a business before, the founders concerned are likely to have certain advantages over those with no previous involvement in new firm formation posing a greater awareness of sources of finance and by possessing a 'track record' should be able to convince a bank manager that they are competent to run a business". (ibid, p.13)

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1 This compares with typical security ratios of assets to borrowing of between 2:1 to 4:1, found in a survey of manufacturing firms in Nottingham. Wilson Committee 1979, pp.23.

Despite this, 14% of the founders who had previously set-up a business, reported banks as not having confidence in their projects compared to 13% of founders with no previous experience. The only difference of any significance was the greater ability of previous founders to provide guarantees of some kind.

In summarising this section we make the assumption that all those founders who passed through the financial filtering process and reported no problems in doing so, possessed the characteristics which satisfied the criteria adopted by the banks, i.e. they cleaned the filter. A third of all new firms were in this category and the nature of the filter (suggested by the types of firms that cleaned the financial screen) does not seem to be related to the industrial activity of new firms, their legal structure or the previous experience (at founding) of the entrepreneurs.

The larger numbers of firms reporting problems in obtaining initial capital of £2,500 - £10,000 might reflect a higher level of risk in lending these sums and indeed banks were generally asking for more guarantees in this range.

Similarly, the nature of the financial filtering process can also be revealed by the types of problems encountered by new firms. It was shown that specific problems, notably the availability of guarantees and banks not having confidence in founders proposals, were related to the size of the investment and possibly the industry sector.

It is interesting to know how the firms themselves perceived the relationship with their bank at the start-up stage. Despite the number of problems mentioned above, the general attitude to banks was encouraging. Only 15% thought that the banks were 'poor' and three quarters of all firms responding thought that their relationship with their bank was either 'good' or 'excellent'. It is clear that despite having problems in obtaining bank finance most founders accepted these as valid commercial criteria and relations with banks were generally very good. (Tables 5.7 and 5.8).

Table 5.7

PERCEIVED ATTITUDES TO BANKS BY NEW FIRM FOUNDERS

Perceived Relationship with Banks at Start-Up Stage

Analysis by Capital Requirements and Legal Structure

(Figures in parenthesis are percentages down columns)

	Initial Capital Required				Legal Structure at Start-Up			
Rating	Less £2,501	£2,501-£10,000	£10,000+	All	Sole Trader	Partnership	* Limited	All
Excellent	6 (50)	10 (63)	8 (36)	24 (48)	13 (50)	6 (38)	7 (64)	26 (49)
Good	2 (17)	3 (19)	8 (36)	13 (26)	5 (19)	7 (44)	2 (18)	14 (26)
Reasonable	3 (25)	1 6)	1 5)	5 (10)	2 (8)	1 (6)	2 (18)	5 (9)
Poor	1 (8)	2 (13)	5 (23)	8 (16)	6 (23)	2 (12)	0 (0)	8 (15)
All	12 (100)	16 (100)	22 (100)	50 (100)	26 (100)	16 (100)	11 (100)	53 (100)

Source: Survey (South Wales, 1985)

* (Limited Companies include two cooperatives)

Table 5.8

PERCEIVED ATTITUDES TO BANKS BY NEW FIRM FOUNDERS -

PERCEIVED RELATIONSHIP AT START-UP

Analysis by Type of Business and Experience

Number of cases

Rating \ Sector	Metal Mnf.	Other Mnf.	Service	All	No Previous Starts	Previous Starts	All
Excellent	6 (37)	11 (55)	9 (52)	26	21 (52)	5 (38)	26 (49)
Good	5 (31)	5 (25)	4 (24)	14	10 (25)	4 (31)	14 (26)
Reasonable	1 (6)	2 (10)	2 (11)	5	4 (10)	1 (8)	5 (9)
Poor	4 (25)	2 (10)	2 (11)	8	5 (13)	3 (23)	8 (15)
All	16 (100)	20 (100)	17 (100)	53 (100)	40 (100)	13 (100)	53 (100)

Source: Survey (South Wales, 1985)

Compared to other manufacturing and service firms, those new ventures started in metal manufacturing industries thought that their relationship with banks was poorer. This was also the case for founders who had previous experience of starting a business. Of the 11 limited companies, 7 perceived banks to be excellent and not one thought them poor, whereas 23% of all sole trader firms thought that the relationship with their bank at the start-up stage was 'poor'.

It is possible to compare the attitudes to banks by firms attempting to raise start-up capital with the relationship between established firms and their banks[1].

In general, the attitudes of new firms are significantly more polarised than are more mature firms, e.g. only 24% of firms thought banks relations 'excellent' in the Business Opportunities Project (1986), compared to 49% in the newly formed firms reported in the present study.

The Wilson Committee (1979) reported that -

> "The banks relationships with the majority of other well established customers may be perfectly satisfactory, but we are not as confident as they themselves appear to be that the number of viable enterprises denied access to sufficient funds is insignificant." (ibid.)

While we have also demonstrated that banks relationships are satisfactory, not only with well established customers but also with new firms seeking finance to start-up. It is important to note once again that these are the views of the people who were actually able to start-up and we have no direct evidence on the potentially (viable) projects which are effectively blocked by the filtering process. In other words, does the financial screening of new and small business projects have too fine a filter?

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1 Business Opportunities Project (1986), Mid Glamorgan Industrial Development Unit and the Welsh Regional Management Centre: Sample details of 208 firms in Mid Glamorgan, 50% with over 50 employees, 75% of firms in manufacturing.

Financial Screening: The Banks Point of View

To analyse the nature of the financial screening process we concentrate almost entirely on the major clearing banks. This is justified for a number of reasons; first, less than 20% of the firms in our sample were incorporated companies at start-up, as such the majority of new firms did not (were unable to) obtain any 'outside' equity finance. In fact only one of the 57 firms surveyed had obtained start-up capital from a financial institution in the form of equity finance. Secondly, leasing and hire purchase methods of reducing initial capital requirements were not mentioned as sources of finance in this survey (Table 5.2) or Cross (1981, p.238), while the main providers of these are finance houses and hire purchase companies (Bolton, 1971, pp.169-171). Leasing and hire purchase is mentioned by most practical literature on business financing. (Nat. West. (1984), Ernst and Whinney (1984), Mogano (1980, pp.25)). It is perhaps surprising that new firms either do not use these methods or do not regard them as significant in obtaining outside finance.

Thirdly, every firm using outside finance to start-up had either a bank loan or overdraft and more generally -

> "The dominant suppliers of external loan finance for small businesses are of course, the clearing banks". (Wilson Committee 1979 - taken from Binks 1979, p.36)

Detailed criticisms of the role of banks in financing small firms in general can be found in the Wilson Report (1979), Bannock (1981) (B), Bannock (1981) (A) and will not be repeated here. However, it is worth noting that at least two thirds of all small firm funds from institutional sources are from the clearing banks, (probably much more for new ventures) and recently there has been a major increase in interest by banks in the small firm sector. (Bannock, 1981a, p.16).

Given the overwhelming importance of clearing banks in providing funds to business start-ups, the nature of the overall financing screening process will be dominated by the nature of the decision making process of banks themselves. Further analysis therefore, requires information on these decision making criteria and to

achieve this, interviews with representatives of the banks in Wales were carried out during 1984 (see Chapter 2).

The interviews were carried out, bearing in mind the assertion made by Bannock (1981):

> "Banks ..... once vested with discretion and responsibility are now subservient to regional offices that know little about local conditions and even less about the borrower's business". (ibid. p.16)

As such the interviews were conducted with the directors of the regional head offices of the clearing banks and whilst recognising the importance of local branch managers discretion in advancing loans, the general policies and criteria adopted will be those emanating from regional offices.

The Filter: A Set of Criteria

Until now we have not specified the terms filter or screeening process. In fact, from the interviews with banks it is clear that the filter or screen is made up of a number of different criteria, criteria which banks generally adopt when assessing an application for start-up finance.

Since the degree of filtering down of applications will depend on the characteristics of the proposals and the extent to which these meet the filtering criteria, it is essential to study the types of criteria involved and the importance attached to each of them.

One of the clearing banks has a seven criteria guide which it uses to train its banks managers. This guide is called the C.A.M.P.A.R.I. factors which stands for Character, Ability, Means, Proposal, Amount, Repayments, Interest. Although obviously not independent of each other the order does generally represent the order of importance of individual factors. The other banks also seemed to fit this scheme, particularly the importance they attach to

the borrowers personal characteristics[1]. By classifying the criteria used to assess financial proposals according to the Campari criteria, we will discuss each in turn.

1. Character

The eye to eye contact across the desk will give the bank manager a good idea of the level of confidence he can put in the applicant. The initial meeting with the bankers will demonstrate to them the degree of confidence that prospective founders have in their own ability. The bank manager is encouraged by a high level of determination, energy and drive and willpower, but is deterred when the applicant fails to show an appreciation of the hard work involved in most new businesses. On average new firm founders work over 60 hours a week and so must have the temperament and enthusiasm to see this through. A keen awareness of his own strengths and weaknesses is essential.

In general, these character criteria are those which are stressed by "Be Your Own Boss" training courses[2] and a number of practical guides to starting and running small firms, (Perry and Jones (1981), Mogano (1980), Nat. West. (1984)).

Since the qualities mentioned are largely the same as those involved in the self assessment process (stressed by Timmons (1980)), then these characteristics go through two major screening processes with the financial screening of personal

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1 The observations and comments made in this section are based on the views of senior bankers. The importance attached to each factor will depend on the frequency of mention, but more importantly the degree of emphasis that they put on them (subjective basis).

2 Examples of training courses which begin with character assessment are (a) 'Your Own Business' course run by CAVE agency, (b) 'The Graduate Enterprise Programme' and (c) 'Be Your Own Boss' run by the MSC and The Polytechnic of Wales.

qualities being the second round of filtering, but more importantly is an independent judgement on the founder. Timmons (ibid. p.199) notes that "interestingly enough this process of self assessment and open criticism from peers (and bank managers) is something the best entrepreneurs seem to thrive on". (my inserts)

2. Ability

A common response was that the best projects to back were those where the person (potential founder) has come from a very good, well paid job. However, these cases were not very common[1] and those that did leave a good job tended to go into direct competition with their previous employer. (It is notable that the general feeling among the bankers was that 'most' applicants had been unemployed at the time of applying for finance).

The four areas of founders ability scrutinised and deemed essential by banks were in management, finance, marketing and technical skills. If these were not in evidence in the founder himself, then they should be supplemented by a partner or employee with such skills. Although rare in most cases applicants should "have the full range of necessary skills".

Another factor recognised by the banks in this group is the lack of expertise in setting up business plans and formal funding proposals. A 'good many' applicants are turned down for these reasons alone. "A well presented proposition cuts a long way" with bank managers.

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1 A survey in Spring 1986 by Fortune, found that only 29% of the random sample of employees would be willing to give up a secure job in persuit of an enterprise which they thought would make them rich.

3. The Means

The financial means to obtain further funding is a necessary, but not a significant condition for acceptance of a proposal, includes both the direct personal equity injection and the ability to offer securities and guarantees against the loan or overdraft.

The personal stake is vitally important since it demonstrates commitment - though demonstrations of commitment may come from elsewhere, moreover, the personal stake is reflected in the level of bank 'gearing'. While the banks do not have any guidelines on the acceptable level of gearing, it is clear that as gearing increases the exposure of the banks investment increases and interest payments could become too high for the business to repay. In general, local bank managers use their own discretion on the ratio of borrowing to security, but there are internal limits set on local managers extending credit to any one individual (these limits will depend on the experience and seniority of the branch manager).

The banks tended to be wary of the proposals funded in part by redundancy payments. The experience of one bank involved in the redundancies at Port Talbot in recent years is particularly interesting. Very few redundant workers used the payments to start a business, there were not many good ideas about and those that did start a business tended to do so in retail, (corner shops and newsagents - increasing the number of shops in the area at a time when local demand was falling with the redundancies). Interestingly, those that did use redundancy payments to start a business tended to be those who had low compensation anyway.

Even though applicants can put their own money into the project they still look at the other criteria, "are they the right people to go into that sort of business, if at all". The general impression was that money demonstrates commitment but it does not have the last say. In particular branch managers are told "don't lend money with security, you wouldn't lend without security".

4. The Proposal

Only after vetting the characteristics and abilities (both financial and personal) to undertake a project is the project itself scrutinised. Banks claim that the type of project involved (manufacturing or services) has little influence on their decisions. What is important in this context is the quality of the business plan, outlining the project and the proposal for funding.

The banks attitude is that they expect the borrower to have done the necessary market research to produce cash flow figures based on realistic assumptions. If the applicant is judged good enough, based on the other criteria, then he should have produced a set of cash flow projections and associated business plan. In fact, the banks claimed to be torn between two forces - (a) the business plan should be produced to the standard of an accountant and the proposer should have already been in touch with an accountant; and (b) the proposer should be capable of doing the cash flow and working through the plan himself. If he cannot do this it may point to problems in running the business later on and especially in providing the banks with monitoring information.

Many of those who do prepare a business plan may be rejected because of the overoptimistic forecasts made in their cash flow. In the banks view the underlying assumptions are widely optimistic in these cases.

All the banks and most major accountancy firms produce cash flow charts and outline business plans to help clients prepare and present a financial case to a bank, yet a poor case presented to a bank is likely to represent a lack of experience in dealing with financial institutions and possibly the neglect of detailed financial information which banks both require and deem essential for the smooth operation of a business.

5. Amount, Repayments and Interest

The business plan will have indicated the type and extent of funding required and this will then be compared with the founders own stake (gearing) according to his means. The cash flow forecasts are then considered - they should have capital repayments built into them along with interest payments. After accounting for these there must be enough left over to provide an adequate living for the proposer and his family, including a sufficient cash flow surplus to finance further trading.

Finally, using the above criteria; Character, Ability, Means, Proposal, Amount, Repayments and Interest (Campari), the branch manager assesses the overall viability of the project.

To demonstrate that the basic 'Campari' criteria are used by other banks the internal training of bank managers in another clearing bank involves a discussion of the '3 C parts' criteria; (C.C.C.P.A.R.T.S.) This stands for:-

Character
Capability
Capital
Purpose
Amount
Repayment
Terms
Security

It can be seen therefore that both the criteria used and the importance attached to each are basically the same in each of the clearing banks[1].

In summary, the more important criteria involved in assessing applications for bank finance are largely subjective assessments by the bankers of the proposal and its proposer. They involve judgements on the potential

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1 The 'Campari' and 'C.C.C.P.A.R.T.S' criteria used by different banks are based on a quite strict order of importance of individual factors which are similar in different banks.

entrepreneur himself, such as "is he the right type of person to go into that sort of business, if at all"? Another attitude stated was "it is our business to loan to who we feel is right".

It is clear, therefore, that the degree of filtering of a proposal will not be uniform over time, across the characteristics of firm founders, or even across different branches of the same financial institution. Despite this, banks are on the front line usually being the last in a long line of entrepreneurial screening mechanisms and the overall nature of this financial filter (described by the Campari criteria) reinforces the self assessment of personal characteristics which may or may not occur. The preparation and presentation of a business plan may relate more to previous employment and education that to overall business acumen.

Banks (and other support agencies) can basically make two types of errors. (Willmer and Hoggard 1983).

Type 1 - A person who does not have the required abilities for success may be selected.

Type 2 - A person who does have the required abilities may be rejected[1]

Both cases result in retarding the creation of new, viable businesses, but against these errors banks also prevent those proposals which are not viable concerns from starting up and may cause many to rethink and modify their proposals to increase the chance of success. The basic question of course, is:- Are the criteria adopted by the banks strongly related to the chances of business success? If they are not then the two types of error are likely to have significant effects on the supply of viable new firms. Related to this, four important points can be made:-

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1 Willmer and Haggard used these principally to consider the effectiveness of small business courses, but their analysis applies equally to financial screening.

1. From the interviews with the bankers it was apparent that if an application for funding had been initially turned down then a large proportion of these unsuccessful applicants do not return to that bank (whether they try other banks or just fold up is not clear). This is so despite the helptul advice the banks claim to be giving the applicants about those areas of the suggested business that need more thought or modification.

2. Storey (1982, Table 8.6) found that "the clearing banks are not particularly good at avoiding investments in loss making companies". (ibid. pp.164) Despite using bank finance to existing companies (rather than start-ups) to compare with profitability and growth he found that banks were lending to a relatively high proportion of firms that were not profitable and lending to relatively few who were making large profits.

3. The decision to accept or reject a project on the margin may be influenced by the overall position of the banks portfolio. There is considerable contact between branch managers and regional offices, by which general feelings of the banks policy are transmitted, specifically does the bank want to make loans at that time or not, depending on the overall bank and accounts balance sheet policy. As such, certain applicants can be rejected for reasons not relating to the characteristics of the individual's proposal.

4. Casson (1982) argues that one of the essential characteristics of entrepreneurs is that (as a result of differences in types and amounts of information):-

> "the entrepreneur believes that he is right while everyone else is wrong ..... the essence of entrepreneurship is being different". (ibid. p.14)

If this is so then significant problems may arise when the entrepreneur tries to obtain outside finance. Since the banks' main criteria (Campari) are basically

subjective (Character, ability, project assumptions, etc.) and by definition these will be different to those of the entrepreneur who sees a profitable market making opportunity.

In fact, Casson states - "There is no objective test of entrepreneurial ability which can guarantee a high degree of accuracy and there is unlikely to be one in the forseeable future. ..... Opinions are therefore likely to differ about whether a given individual has entrepreneurial ability. ..... This means that the identification of an entrepreneur is itself a judgemental activity". (ibid. p.329)

Screening Criteria: The Perceptions of the Firms

Given the subjective nature of the financial filters (criteria) described above it is likely that the applicants who actually successfully negotiate the screening process will have particular perceptions about the financial criteria adopted and that these will not necessarily be the same as those of the banks themselves. In order to get a 'second opinion' on the nature of the criteria that banks adopt when assessing an applicatation for start-up finance, the founders of the new firms in the survey were asked what they thought the criteria adopted by the banks were. The question was 'open', but the criteria mentioned were readily classified into six groups (Table 5.9).

Clearly the sample in this case is strongly biased. The founders interviewed were those who eventually started up and their particular responses will therefore reflect the criteria adopted by banks which effected their passage through the financial process, e.g. only 10% of all mentions of criteria by the founders were specifically related to personal characteristics (confidence in applicant), but this may be due to the fact that the personal characteristics possessed by founders were sufficiently acceptable to the banks that they did not 'make it an issue' and so was not persued by founders as an important criteria used by the banks as the filtering mechanism.

Table 5.9 CRITERIA USED BY BANKS IN ASSESSING START-UP LOANS - AS PERCEIVED BY NEW FIRM FOUNDERS

(Number of mentions)

Figures in parenthesis are percentages

	Initial Capital Required				Legal Structure at Start-Up			
Criteria Mentioned	Less £2,501	£2,501 £10,000	£10,000+	All	Sole Trader	Partnership	* Limited	All
Guarantees/ Security	6 (43)	4 (20)	7 (70)	17 (39)	9 (38)	7 (47)	2 (18)	18 (36)
Profitability	2 (14)	4 (20)	1 (10)	7 (16)	5 (21)	2 (13)	1 (9)	8 (16)
Presentation of Case	4 (28)	6 (30)	2 (20)	12 (27)	7 (29)	4 (27)	3 (27)	14 (28)
Personal Stake Bearing	1 (7)	1 5)	0 (0)	2 (5)	1 (4)	0 (0)	1 (9)	2 (4)
Track Record Experience	0 (0)	2 (10)	0 (0)	2 (5)	1 (4)	1 (7)	1 (9)	3 (6)
Confidence in Applicant/Personal Character	1 (7)	3 (15)	0 (0)	4 (9)	1 (4)	1 (7)	3 (27)	5 (10)
All	14 (100)	20 (100)	10 (100)	44 (100)	24 (100)	15 (100)	11 (100)	50 (100)

Source: Survey (South Wales, 1985)

* (Limited Companies include two cooperatives)

Despite these problems of interpretation it is clearly important to see how the firms themselves view the nature of the financial filter and compare this with the criteria actually (or claimed to be) adopted by the banks.

It can be seen in Table 5.9 that the most important criteria perceived to be used by banks in assessing an application for start-up finance is in fact the availability of guarantees and security. This received 36% of all mentions by new firm founders. Next of importance was the type and quality of the presentation of the business plan. While only 16% mentioned that profitability and therefore the ease with which loans could be repayed was an important element in the banks decision.

The most striking result is that only 5 (10%) out of the 50 mentions were directly related to the confidence that banks had in the applicant himself (personal character). The banks themselves generally thought that this was probably the most important factor in their decision and was certainly the first subject that they considered in the decision whether to extend finance or not.

Apparently founders thought that the importance of a track record was of minor significance to the bank, (only 6% mentioned this) and yet experience and track record are strongly related to the 'ability' criteria which banks also consider of prime importance.

Those founders who actually started in business as limited companies thought that guarantees were less important and banks confidence in the personal character of the founder more important than either partnerships or sole traders. In this sense the banks view of the financial criteria is more closely related to the experiences of founders of limited companies than those of partnerships or sole traders.

The general differences in perception of the criteria adopted between banks and the new firms themselves can be highlighted in Table 5.10 which summarises rankings of importance of each criteria.

Table 5.10 Perceptions of the Nature of the Financial Screen

Criteria	Criteria Ranked by Order of Importance	
	Perceived by Firms (1)	Perceived by Banks (2)
Guarantees/Security	1	3
Profitability	3	5
Presentation of Case	2	4
Personal Stake Gearing	6	5
Track Record Experience	5	2
Banks Confidence in Applicants Characteristics	4	1

Source: (1) Survey (South Wales, 1985)

(2) Bank Interviews - The Campari Criteria

Of prime importance to banks is the level of confidence they can place in applicants. In contrast firm founders thought that the most important criteria adopted by banks was the ability to provide guarantees. The personal characteristics of founders were only ranked fourth in significance.

Effects of Screening: On Actual Start-Ups

The most important effect this financial screening process has is probably on the rate at which new projects are accepted or backed and therefore, given the supply of potential entrepreneurs the supply of actual new firms is largely determined. In fact 35% of all new firm founders interviewed in the survey said that the availability of finance had prevented them from going ahead with some other business idea before actually starting their current business. This is surprising in some respects since the personal character and ability of the applicant to carry out a business venture is unlikely to have changed very much between the time at which these other projects were rejected and the current backed venture set up.

Since these are the two main criteria used by the banks in assessing an application for business finance it suggests[1] that the projects rejected were marginal cases and probably rejected due to the viability of the proposed project rather than a reflection on the ability of the applicant to carry it out.

The ability to obtain finance also has a number of other significant effects on firm formation. Forty six percent of new firm founders claimed that their start-up was delayed or prolonged directly as a result of the availability of start-up finance.

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1 Some of these may not actually have needed to obtain bank finance, or the lack of finance may not have been due solely to bank rejection of funding applications.

Table 5.11 The Effect of Availability of Finance to New Ventures By Size of Start-Up

(Figures in parenthesis are percentages)

	Size (employees including founder)									
	1		2		3		4+		All	
	Yes	No	Yes	No	Yes	No	Yes	No	Yes	No
Effect on Size of Start-Up	11 (42)	15 (58)	11 (50)	11 (50)	4 (100)	0 (0)	1 (20)	4 (80)	26 (46)	30 (54)
Prolong Start-Up	9 (36)	16 (64)	12 (55)	10 (45)	3 (100)	- (-)	1 (20)	4 (80)	25 (46)	30 (54)
Prevention of other Ideas	8 (31)	18 (69)	7 (33)	14 (67)	2 (50)	2 (50)	2 (50)	2 (50)	19 (35)	36 (65)

Table 5.12

	Capital (start-up) required (£1000's)													
	Less £1		£1 - 2.5		£2.5 - 5		£5 - 10		£10 - 50		£50+		All	
	Yes	No	Yes	No	Yes	No	Yes	No	Yes	No	Yes	No	Yes	No
Effect on Size of Start-Up	8 (53)	7 (47)	2 (22)	7 (78)	5 (50)	5 (50)	5 (43)	4 (57)	6 (67)	3 (33)	2 (50)	2 (50)	26 (46)	30 (54)
Prolong Start-Up	6	9	2 (22)	7 (78)	4 (40)	6 (60	5 71)	2 (29)	5 (63)	3 (37)	2 (50)	2 (50	24 45	29 55)
Prevention of other Ideas	6 (40)	9 (60)	1 (13)	7 (87)	3 (30)	7 (70)	2 (29)	5 (71)	5 (56)	4 (44)	- (-)	3 (100)	17 (33)	35 (66)

Source: Survey (South Wales, 1985)

Table 5.12 shows that founders requiring start-up capital of £5,000 or more tend to have a more prolonged start-up process than those requiring smaller sums. In fact over 60% of those who claimed to have a protracted start-up process (as a result of needing more finance) also said that the size of eventual start-up was smaller than they had originally intended. More generally, almost half of the total sample thought that the level of financing eventually used had a significant dampening effect on the size of start-up.

There is no clear relationship between this and the actual size of the start-up, but only 22% of firms using between £1,000 and £2,500 launch capital thought the eventual size would have been larger if appropriate finance had been arranged.

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CHAPTER 6

ASPECTS OF THE START-UP COORDINATION PROCESS

The financial screening process described in the previous chapter has a duel role, not only does the availability of finance act as a screening mechanism, but is also an important part of the coordination of resources that must be undertaken by new firm founders.

Even after being screened by a third party and/or self assessment criteria, the entrepreneur must act as a coordinator of a number of decisions and resources before his firm can begin trading and therefore be subjected to the ultimate form of third party screening - the reaction of the market place to his venture.

The coordination or dynamic management of resources by the entrepreneur involves substantial skills; finance must be found from some source; appropriate premises negotiated; the venture planned; customers identified; suppliers found and possibly labour employed. The coordination activities continue with conformation to legal restrictions and obligations; contact with accountants; local planning authorities; public utilities, etc.

All these activities have to be coordinated by the entrepreneur in the process of setting up a business and it is this which leads Casson (1982) in more theoretical terms to define the coordination process as - "The process by which different decisions are harmonised". (ibid. pp.41-57)

He continues ...."The concept of coordination captures the fact that the entrepreneur is an agent of change: he is not concerned merely with the perpetuation of the existing allocation of resources, but with improving upon it". (ibid. p.24)

The purpose of this chapter is, therefore, to analyse some aspects of this coordination process and to try and identify some of the more common problems encountered by founders in actually setting up their business. It is likely that the problems involved in coordination of

start-up activities will be related both to the size and the legal status of the new firm and to the previous experience of the founder. The problems reported by founders in setting up their businesses are likely to reflect problems of resource and activity coordination at this stage.

Setting Up: General Problems of Coordination

Founders were asked to describe the problems they faced when setting up their enterprises and as such the questions were quite 'open ended' and while a number of problems may have been overlooked, it is possible that the most significant problems encountered by founders would be reported without prompting.

In fact only 8.9% (Table 6.1) of the responses claimed to have no significant problems in setting up (this represented 7 of the 57 new firms). On its own the high proportion of founders having problems might be expected when all the complex coordination activities involved in the start-up process are considered. However, Cross (1981) found that almost a third of his sample of new manufacturing firms in Scotland had not encountered problems in establishing a new firm. The difference is puzzling especially in view of the lower start-up capital generally required for firms in this study. One explanation of course could be that the present sample is strongly biased towards those founders who did have problems in setting up and therefore needed to go to an enterprise agency (from which our sample derives) for help. However, examination of the interviews reveals that founders who approached enterprise agencies, only after they had started up, were just as likely to have experienced problems at start-up as those who went to them in order to start-up.

The main problems in the present survey and that of Cross were those related to finance, 23.2% and 26.9% of mentions respectively. Furthermore, it is probable that a number of other problems mentioned had their root causes in financial matters. The problems of raising outside start-up finance were detailed in Chapter 5 where it was shown that the lack of guarantees (or willingness to give guarantees) was perceived as the main problem. Table 6.1

however, shows that of the general financial problems encountered, those related to cash flow (or planned cash flow) were most important and this indeed may explain the problems related to banks asking for guarantees.

Furthermore, since over 60% of the firms actually required outside finance, it is clear that the decisions and activities involved in securing bank finance is a major part of the coordination process and it is this that ensures the majority of new ventures are screened by a third party, (banks and financial institutions), before actually starting up.

It is, therefore, necessary to discuss in more detail the types of financial coordination that a new firm founder must undertake. The founder will probably have to arrange an appointment with his bank manager and possibly shop around different banks or financial institutions, he may also need to find an accountant or find a suitable partner. If partnerships are entered into, or personal assets offered as security, a solicitor may be needed. These activities are by no means trivial and may take a considerable time to organise, but in principle they should be formalised in a business plan.

The business plan serves two main purposes: first, to help founders focus their ideas in a logical manner and generally formalise the type of problems that have to be overcome and the activities that have to be undertaken to meet set objectives. Secondly, the business plan is used to provide formal proposals for finance from outside sources whether it be a loan or equity funding.

It is this second role of the business plan that undoubtedly receives most attention and is a role which has significantly increased in importance in recent years. (Ormerod and Burns, 1984). In fact almost all major accountants and banks produce outlined business plans to guide written finance proposals and we have already noted the importance attached to business plans by the banks themselves. Since properly prepared business plans can take a number of months to prepare, this demonstrates to the banks the level of commitment necessary before any further consideration of the proposal is made.

Table 6.1 GENERAL PROBLEMS ENCOUNTERED BY FOUNDERS OF NEW FIRMS IN SETTING UP THEIR VENTURES IN WALES - 1980 - 1985

	Present Survey (a)			Cross (b)
Problem Type	Problem	%	%	% Scotland
None		10.7		31.0
Finance	Raising Money	9.8)		
	Cash Flow	13.4)	23.2	26.9
Market	Finding Market	)		
	Recession	)		
	Client Reputation/Confidence	)	13.6	14.7
Bureaucracy	Form Filling	)		
	Timescales of Public Bodies	)	5.4	8.6
Lack of Information	General lack of help/info	)		
	No Practical/Technical/	)	21.5	4.9
	Premises Information	)		
Labour	Finding Employees	)		
	Time to Train Staff	)	7.3	0
	Partner Needed	)		
Other	Administration Burden		2.7	N/A
	Finding Premises		8.0	N/A
	Negotiating Suppliers		4.5	N/A
	Own Motivation/Risk Factor		3.6	N/A

Source: (a) Survey (South Wales, 1985)

(b) Comparisons should only be made at broad level such as marketing or financial factors because framing codes are different in both samples.

Compiled from: Cross M. New Firm Formation and Regional Development, 1981 (Table 8.34)

Furthermore, the plan should include a description of the previous experience of the founder and the attributes and skills of the management or ownership team.

Sixty seven percent of all founders in this survey actually prepared a business plan prior to starting up (Table 6.2) and it is clear, therefore, that the business plan is an important element in the start-up coordination process, even if only looked at from a financing point of view. Not unexpectedly, new ventures which began life as incorporated companies have a higher propensity to make use of a business plan at start-up (89%) than either partnerships (70%), or sole traders where only just over half prepared a plan.

Almost every founder who produced a business plan also incorporated cash flow forecasts and profit and loss accounts. The significance of this will be discussed in the following chapter, but it can be noted here that the 64% of founders who prepared cash flow forecasts effectively had a method for calculating the net flow of income arising from their original start-up investment, which in general is significantly more than small firms undertaking investment projects.

Once cash flow projections are made it becomes possible to estimate the level of funding required in order to trade at the planned scale of business and together, with the 'bottom line' profit and loss, provides the basis of a proposal for bank financing.

Some idea of the importance attached to the two roles of the business plan is shown in Table 6.2. While banks and venture capitalists view the business plan as more than a financing device (Timmons 1980) and stress its long term value providing a medium for the development of a formal strategy and allows the monitoring of performance of a new venture, new firm founders regard the business plan mainly as a mechanism to obtain bank finance with its other roles (those which finance organisations regard as most important) being demoted to those of minor importance.

Less than a third of all founders who produced a business plan had actually used it after they had secured finance and interestingly, a much higher proportion of founders had used the business plan after start-up who had not

approached an enterprise agency to start-up and therefore, probably had to pay for an accountant's report (costing anywhere from £500 to £10,000) than those who actually went to an enterprise agency in order to start-up (enterprise agencies usually provide free advice or actually help prepare cash flow forecasts).

Intimately linked with the cash flows and business plans are the assumptions made about the potential market, but only 13.6% of all problems encountered by new firm founders in setting up their enterprises were market related (Table 6.1). This is very similar to that reported by Cross for Scotland. Market related problems were largely founders having difficulty in finding customers in practice, rather than broad identification problems and some reported that orders were likely to be low while they built up a sufficient reputation (particularly trust) with clients.

In general, the problems of coordination related to markets and finding clients are considerably less important than those involved in raising finance.

Much has been made of the high levels of 'red tape' experienced in small firms and its role in retarding their growth[1]. The Bolton Committee reported that -

> "Small businessmen are seriously disturbed about the cost of form filling, in terms of executive time and the diversion of energies". (ibid. p.256)

However, while this may be an important problem for existing small firms in general[2], the bureaucracy involved at the start-up stage was only mentioned as a problem by 5.4% of founders. Similarly, only 8.6% of the responses found by Cross can be classified as problems with bureaucracy.

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1 Also see Bannock (1981, pp.122-123).

2 A study by the Economists Advisory Group (1983) found that between 1977 and 1982, 3% of firms thought the attitude of central Government to small firms with regard to statistical form filling, etc. actually got better, but 37% thought it had got worse.

Table 6.2

USE OF BUSINESS PLAN AND CASH FLOW FORECASTING

Number of cases

(Figures in parenthesis are percentages)

Use / Type	Prior to Start-Up: Business Plan Yes	Business Plan No	Market Research Yes	Market Research No	Cash Flow Yes	Cash Flow No	Since Start-Up: Business Plan Used Yes	Business Plan Used No
Sole Trader	16 (55)	13 (45)	11 (44)	14 (56)	14 (50)	14 (50)	8 (29)	20 (71)
Partnership	12 (70)	5 (30)	6 (40)	9 (60)	12 (70)	5 (30)	5 (29)	12 (71)
Co-operative	2 (100)	- (-)	1 (50)	1 (50)	2 (100)	- (-)	- (-)	2 (100)
Limited	8 (89)	1 (11)	3 (33)	6 (66)	8 (89)	1 (11)	4 (44)	5 (56)
All	38 (67)	19 (33)	21 (41)	30 (59)	36 (64)	20 (36)	17 (30)	39 (70)
Approach to Enterprise Agencies								
Pre Start-up	18 (72)	7 (28)	13 (57)	10 (43)	18 (69)	8 (31)	4 (15)	22 (85)
Post Start-up	19 (61)	12 (39)	8 (30)	19 (70)	18 (61)	11 (39)	13 (43)	17 (57)

Source: Survey (South Wales, 1985)

It follows that attempts by the Government to reduce the bureaucratic burdens[1] will only have a very minor effect on the rate of new firm formation, although growth in existing small firms may be encouraged.

One of the most surprising results in Table 6.1 is that the most common problems encountered in setting up a business in Wales are those associated with general 'lack of information' (second only in importance to financial problems). While Cross found that a few firms encountered problems of this kind, i.e. lack of knowledge of different sources of finance, only 4.9% of problems encountered by firms in his survey can be classified as 'lack of information' - compared to 21.5% in the present survey.

At the start-up stage firms complained of the problems of obtaining information on premises in the area on technical matters, but most common of all is a general lack of practical information about starting the business (especially legal restrictions and obligations).

These problems seem to be a more considerable barrier to starting a business in Wales in the 1980's than for Scotland in the 1970's, despite the firms in the sample having the resources of enterprise agencies (26 of the 57 firms actually used an enterprise agency) and the Small Firms Service. These were not in existence in the 1970's. (The role and performance of these support agencies will be discussed in Chapter 9).

In summary, the coordination process not only involves the physical allocation of resources in order to begin trading, but a large part of coordination involves acquiring knowledge and information about the potential resources at the founder's disposal and the constraints within which his new venture will operate. The role of information in the coordination process should not then be trivialised.

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1 (1985) The Government has announced a major reform of small business legislation in a white paper entitled 'Lifting the Burdens'.

The Role of the Location Decision in Start-Up Coordination

The decision on where to locate the new business and availability of suitable premises is also an important part of the start-up coordination process.

When compared to existing firms, large or small, new firms may be thought to be significantly more mobile in a geographical sense by virtue of the fact that they do not have any existing fixed assets. Thus, the predictions of crude profit maximising models would suggest that the eventual siting of a new firm would reflect the lowest point on the spatial cost surface.

A number of empirical studies have shown that the cost minimising approach to industrial location to be unrealistic, both in terms of its predictions and of its assumptions about actual business procedures adopted by firms. (Sant (1975), Townroe (1971) and Hamilton (1974)).

In terms of an explanation for industrial location, economic geographers have recently begun to concentrate on the internal environment and structure of firms as deciding industrial location, rather than the purely external (cost surface) factors. Humphries (1986) believes that only about 30% can be explained by external factors, the remaining 70% of the explanation is made up by internal factors.

Although these studies were based mainly on large transfer and branch plant firms, it could be argued that the model is even less relevant to new independent firms than these studies suggest. This is so for two main reasons: firstly, founders of new firms have so many other aspects of firm formation to coordinate and therefore, lack the resources and possibly the skills of management teams supervising location decisions in larger organisations. Secondly, the level of exposure of the entrepreneur and his family to the risks of business failure will be considerably higher if the least cost site requires a family upheaval and relocation along with the new firm. As a result the actual location of the new firm may be significantly risk discounted.

Interestingly, if this type of risk is important then less risk averse entrepreneurs (possibly those who were

attracted into firm formation rather than pushed) are more likely to conform to the neoclassical location theory than more risk averse entrepreneurs.

In light of this, therefore, new independent firms (although being relatively mobile in the physical sense), are not thought to be adequately represented in location theory. Mason (1982) found that only a third of all the new manufacturing firms in South Hampshire undertook any search for premises that were outside the 'neighbourhood' or local authority, in which the founder previously lived or worked.

Confirming the local nature of location decisions, Storey (1982) reports that only 11% of his sample (new firms in the North East, independents and branch plants) had seriously considered locating in another area. In Chapter 4 (Tables 4.4A and 4.4B) it was shown that only 7% of new businesses were moves into Wales immediately prior to setting up and overall 90% of the founders initially set-up their business in the same county of South Wales as they lived in immediately before start-up.

This evidence suggests a generally passive role of the location decision in the coordination process and indeed was not mentioned by any firm as being a problem in setting up (Table 6.1). Furthermore, it suggests that new firms location decisions are dominated by personal factors such as the place of birth or residence of the founder.

In order to shed more light on the location decisions of new ventures, founders were asked to describe the reasons for choosing their initial general location (as distinct from site or premises). Almost a quarter of new firms (23%) began in the house of their founders[1]. Of these, there were generally two groups:

(a) Those starting at home for convenience, e.g. looking after a child, or the nature of the work did not require specific premises, i.e. mobile marine crane repair contractor.

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1 This is similar to the results of Mason (1982, p.29) for South Hampshire and Bannock (1981, p.40).

Table 6.3 SITE SEARCH BY FOUNDERS OF NEW FIRMS:

AN ANALYSIS BY SIZE OF FLOORSPACE (SQ.FT.)

(Figures in parenthesis are percentages)

Floorspace Sq.Ft.	ALTERNATIVE SITES LOOKED AT		COST COMPARISONS CARRIED OUT	
	YES	NO	YES	NO
500 - less	4 (33.3)	8	3 (25.0)	9
501 - 1000	5 (31.3)	11	8 (50.0)	8
1001 - 2500	5 (62.5)	3	4 (57.1)	3
2501 +	7 (70.0)	3	4 (40.0)	6
All	21 (45.7)	25 (54.3)	19 (42.2)	26 (57.8)

Source: Survey (South Wales, 1965)

(Total number of responses to this question = 46)

(b) Those who argued that using their own home was a way of starting with minimum financial risk[1].

The second group outweighs the other in terms of numbers of mentions, but members of both groups also mentioned local contacts as being important. The largest single group of mentions was typified by the statement - "This is my home patch - where I live". 27% of all mentions were of this sort, but almost invariably this was related to the fact that their home 'patch' gave them access to superior personal contacts and the identification of local markets (both suppliers and customers) was made easier than a less well known location. Therefore, since many of these personal factors, such as the apparent critical importance of where the founder actually lives, are also strongly related to the proposed new venture especially in the cost of obtaining information on suppliers and customers. Then the apparent contradiction of neoclassical models of location by this evidence may be more apparent than real (Devine, et al 1979, p.461), also Greenhut (1967) and Machlup (1946).

15.9% of reasons for start-up locations were specifically related to being near to markets (not including those in previous sections) and a further 7.9% mentioned transport accessibility. 5 of the 52 firms responding claimed that a lack of competition in the locality was a factor in their choice of location, but since this was also in their home area it is doubtful that these firms would have identified this lack of competition if they had not lived in the locality. The 'other' reasons group includes such factors as disablement and immediate availability of premises in the locality.

Regional Incentives and the Location Decision

Considering that almost all of the area covered by the survey has assisted area status (and therefore Regional Selective Assistance and Regional Development Grants are available), it is significant that only two of the firms

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1 One of these claimed to be the market leader in a new business initiative service with no competition in the U.K., but as such it was a risky and 'untried field'.

mentioned grants as a factor in their final decision on location (and one of these only located there not to take advantage of the incentives themselves, but to be close to other firms (clients) who were nearby in the Swansea Enterprise Zone).

It seems therefore, that regional policy has had little or no effect on the location decisions of new indigenous firms. Perhaps even more alarming is that even at the time of interview 49% of the founders interviewed either did not know whether they were sited in an assisted area (and therefore probably eligible for assistance) or stated that they knew, but were actually incorrect. Clearly, considerably more than half of these were unaware of their assisted area status at the time of start-up.

The question of assisted areas was then put to the founders in a more direct way - "Did you take into account assisted areas and their incentives in your location decision?" 94% said No. The 3 firms (6%), who claimed to include regional incentives in determining their start-up location were all founded by graduates and two of these required over £50,000 initial capital. It is interesting to see the factors that influenced the location of these three firms:-

Firm A: Chemical manufacturer - needed to be near main customer (BSC Port Talbot). The high start-up capital required meant that regional investment incentives were important. However, planning permission in suitable locations was not given. Nearest suitable premises to main customer was in an intermediate area.

Firm B: Manufacturer of kitchen units - used Regional Development Grants at start-up in workshop units at Llanelli. However, this was not mentioned as a reason for location to this site. The main reason being the central location between its main market of Swansea and Carmarthen.

Firm C: Metal parts manufacturer - specifically mentioned grants as a major influence on the location. Even this firm located immediately adjacent to its main customer and regarded road transport links as important (2 miles off M4). Firm

founded with £66,000 start-up capital, with about 40% of this directly coming from the location in an assisted area - assistance which was built into cash flow estimates at start-up. £15,000 in the form of a European Investment Loan, £10,000 in Selective Financial Assistance and a further £2,000 in Regional Development Grants.

More significant problems encountered in the coordination process are those related to premises rather than general location decisions. This may be because -

> "Firms do not necessarily, or even usually, recognise that the locaton aspect is important".
> Hamilton in Devine et al (1979, p.461).

But significant problems do occur in the search for premises, Lloyd (et al 1983), for example, found that 70% of firms which required a search for premises in the South East reported that they had encountered difficulties.

Once the 'decision' to locate in South Wales is made the firm has to find a particular site or premises within the locality. In Table 6.1 it was shown that only 8% of general problems encountered by founders at start-up were specifically related to premises, although this problem generally seemed to be a major obstacle among these firms. Less than half of all the founders in the sample actually searched for alternative sites to the one they eventually set up in. Seemingly the very limited search procedures undertaken are inconsistent with neoclassical location theory. However, if the costs of search are high it could explain this observed search behaviour and still be consistent with profit maximisation. Table 6.3 describes the liklihood of founders searching for alternative premises at the start-up stage according to the floorspace requirements. It can be seen that the smaller the size of the premises required, the less searching (in terms of numbers of firms, not length of time) for sites is undertaken. Only a third of founders initially starting in premises of 500 sq.ft. or less actually bothered looking for alternative sites to the one they eventually set-up at, compared to the 70% of founders who required premises of over 2500 sq.ft. This lends weight to the argument that firms take into account search costs in

their location decision. For example, if these costs are not related to the size of the premises required and yet the potential benefits of search is proportioned to the size of premises, then it would be expected that the smaller the floorspace required the less search activity that would take place and vice versa[1].

Most founders who did actually engage in a search for sites also did cost comparisons between sites (about 42% claimed to have done this). However, the general feeling was that only the upfront costs of rent and rates were included in these cost comparisons. Interestingly, only 40% of firms starting with premises of over 2500 sq.ft. actually did cost comparisons despite 70% of them looking for alternative sites, this is probably due to both the 'suitability and availability' of premises for these sizes of businesses generally being more important than differences in cost.

Apart from finding premises and finance there are many other less emotive activities of coordination that have to be undertaken: suppliers found; methods of distribution arranged; products marketed and other information gathered. Some points to emerge:-

1. Many new firms are very highly dependent on a single supplier of raw materials. The contacts to obtain supplies were dominantly derived from the immediate locality and a number of firms obtained raw materials, initially from wholesalers to the general public, rather than negotiate 'better' terms with suppliers themselves. Around 40% of the supplies at start-up were, therefore, obtained from their single largest supplier[2] in fact as many as 9 out of the 57 firms in this survey were dependent on their single largest supplier for over 80% of raw materials purchased.

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1 The average floorspace of the new firms in this sample is 1911 sq.ft. and is very close to that reported by Lloyd and Mason (1983) for new firms in the South East.

2 This 40% represents a simple average proportion and is not weighed according to the level of purchasing power in each firm.

2. A major activity at this stage for the founder is 'on the front line' - he must sell his product. 93% of founders had no other means of selling their products or service than doing it themselves. Of the remaining 4 companies, two were basically marketed by the franchise agencies they were involved with and the other two, (limited companies) had a manager specifically in charge of sales. It is interesting, therefore, that at start-up none of the founders had outside agents in the local area, let alone in other parts of the country (or abroad).

3. Distribution was entirely by road transport (none of the firms using rail at start-up). The majority of firms had invested in their own transport with only 3 hiring or leasing vehicles. While many of these vehicles may have been secondhand it is probable that initial start-up investment could have been lowered if founders had been able to obtain lease or hire purchase agreements. Moreover, the 'own transport' method of distribution implies that delivery may be an important founder activity and possibly allows less time for production administration or marketing efforts. (The average working week for founders immediately at start-up is 62 hours).

4. Confirming the importance of information coordination at the start-up stage, as many as 41% of founders claimed to have attended business courses of some kind or another before actually setting up. (At the time of interview about a quarter of founders had attended a course after launching their venture). Much academic work on small business courses tend to be involved with rather high level initiatives such as Action Learning (Boddy and Lewis 1983), or graduate business schools in the U.S.A. However, the majority of founders of new firms in this sample attended courses of small workshops, possibly run by local enterprise agencies and usually only one-off, one day courses.

The aspects of coordination that are involved in the start-up process all take time. A properly prepared business plan may take between 200-300 manhours - representing several months work (Timmons, 1980, p.28). Securing premises and finance, finding and negotiating

with suppliers and generally searching for and assimilating information, all this means that the majority of firms are started up only after a number of months in planning.

Founders were asked how long it took them from the time they had actually decided to go ahead with the venture until it first started trading. The results are shown in Table 6.4. Almost 70% of all founders had a start-up coordination process which took at least 3 months, almost a fifth of new firms had taken over 9 months to set up. The average time taken at this stage was just over 5 months and 1 week.

It is also apparent that the length of the time required to coordinate start-up decisions, information and resources is sensitive to the legal status of the new venture. On average those firms being incorporated at the outset took longer to set-up than the others, with 2/3rds. of limited companies and cooperatives having formative periods in excess of 6 months. The coordination period does not seem to be proportional to the number of founders involved in each start-up, e.g. over half of the 15 partnerships were started in less than 2 months compared to 28.6% of sole traders, suggesting that the activities of the coordination process are being shared among the partners and thereby reducing the time taken to start-up, however, this is not in evidence for longer start-up periods.

Other aspects of coordination are discussed in the following chapter where the markets, competition and investment of new firms are considered, along with the policies and goals of new firm founders. Furthermore, the crucial role that information plays in the start-up process will be highlighted in Chapter 9 when discussing the role and performance of support agencies.

Table 6.4 TIME TAKEN TO START-UP BUSINESSES - BY LEGAL TYPE

(Number of Cases)

(Figures in parenthesis are percentages)

Time / Type	Months					
	1+2	3+4	5+6	7+8	9+	All
Sole Trader	8 (28.6)	8 (28.6)	8 (28.6)	1 (3.6)	3 (10.7)	28 (100)
Partnership	8 (53.3)	2 (13.3)	2 (13.3)	-	3 (20)	15 (100)
Cooperative	-	-	-	1 (50)	1 (50)	2 (100)
Limited Co.	-	2 (28.6)	1 (14.3)	1 (14.3)	3 (42.9)	7 (100)
All	16 (30.8)	12 (23.1)	11 (21.2)	3 (5.8)	10 (19.2)	52 (100)

Source: Survey (South Wales, 1985)

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CHAPTER 7

ENTRY INVESTMENT AND PRICING

This chapter aims to identify the decisions which entrepreneurs have to make at the start-up stage. These decisions will be analysed in three groups:- (a) investment; (b) the entry; and (c) pricing. For each of these, survey data will be presented and briefly discussed in the context of relevant microeconomic theories.

By their very nature, these three groups are significantly interdependent, for example, the reaction of competitors to the new entrant will be related to the pricing methods or policies adopted by the entrant, price itself is likely to be effected by the level of output and therefore, initial investment required, furthermore, the expected price and investment decisions of new firms will presumably effect existing firms behaviour with regard to entry barriers (limit pricing) and especially with regard to perceptions by the potential entrants.

Investment: The Start-Up Scale Decision

Assuming a founder has decided what type of business he would like to begin, what are the factors involved in deciding the scale of entry? The problems of scale decisions are normally subsumed within theories of investment and are dependent on the various ways in which firms actually calculate project viability (if at all) and the goals which dominate their behaviour.

Although almost two-thirds of the founders actually prepared cash flow forecasts prior to start up, only a few used them to do any kind of formal method of investment appraisal. The bottom line of the majority of cash plans were looked at as actual figures and tended to be compared with living expenses rather than rates of return or length of payback periods[1].

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1 In this respect, the new firms in this sample are substantially less sophisticated in calculating investment viability than existing small firms in general. Hankinson (1976) found that 88% of firms (ot less than 25 employees) used either payback or rate of return - only 12% used no method at all.

Table 7.1 details the factors involved in the initial scale decision[1]. Clearly a major constraint on the size of start-up is the availability of finance (with no mention of the cost of that finance in this case) and this has implications for the importance of the overall financial screening process as a barrier to entry (next section). In particular, the availability of finance concentrated on the willingness of banks to lend. In contrast only 4 (7%) of the sample firms were constrained at start-up by initial market size. Two firms were actually founded at a size which was specifically geared to meet contracts which they had already obtained before starting up.

The most significant group of factors in the scale decision, however, are those related to the personal risk acceptance of the founders, receiving 40.4% of responses. The main constraint, therefore, on the initial size of the venture is the extent to which founders will accept risk[2]. In order to reduce the risk to which they would have to be exposed, founders plan to start at a size which would enable them to test the viability of the enterprise and to see if the venture could actually support themselves and their families. Three of the 23 firms in this group claimed that the size of start-up was determined by the amount of financial liability they would have to accept if the venture failed. ("A failure I could afford").

At least in principle the importance of risk aversion suggested in this sample confirms the approaches adopted by Knight (1921) and later by Kihlstrom and Laffont, (1979) however, risk implies that there are given and known probabilities of different future outcomes and yet, uncertainty implies that even these probabilities are not known. It can be argued that those founders who were testing for the feasibility of their venture by starting

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1 Founders were asked how they decided on the scale at which they eventually set up.

2 It was shown in Chapter 6 that a number of firms were started in the founders homes, in order to minimise the financial risk.

Table 7.1

Entry Investment

Factors Involved in the Initial Scale Decision

Category	No. of cases	% of cases	Detail	No.
Personal Risk Acceptance	23	40.4	Test for feasibility 'foot in water'	16
			What I could afford if failed	3
			Until I knew I could make a living out of it	4
Availability of Capital	17	29.9	Max. of own resources	1
			Finance; willingness to lend; banks	16
Market size	4	7.0	Rate of sales, size market	4
Size to cover living expenses	2	3.5		2
Orders already in	2	3.5		2
Smallest viable	2	3.5		2
Other	7	12.3	Cooperative (size)	
			Franchise set	7
			Level p.t. work available	
All	(57)	100	All	57

on a small scale were trying to assess likely probability distribution, however, to the extent that most investment projects are non-divisable, probability ceases to have any operational meaning[1].

The approach adopted by Shackle (1971) seems to have particular relevance to new firm investment decisions in both theory and in evidence presented here. Shackle proposed that the investor's proper task was to find - the best whose corresponding worst is not too high a price to pay. (Such a concept could be analysed by potential surprise functions). The arguments proposed by Shackle in favour of such an approach stress the uniqueness of most investment projects and indeed, the uniqueness of most start-ups, their non-divisable nature and the non-observability of outcomes on which to base forecasts. Clearly, firms new to particular markets and with new organisation are likely to be extreme forms of these arguments.

While the exact mechanisms proposed by Shackle's non-probablistic view of the investment decision cannot be verified (and indeed have found little application in microeconomic theory so far[2]), the basic argument that the decision-maker asks himself - what is the largest tolerable loss he can maintain (and then using this constraint goes on to analyse various outcomes) is largely supported by Table 7.1. Founders tend to enter markets hesitantly with the overriding importance of the "what if I fail attitude".

Reaction Barriers to Entry

Bain (1956) identified three types of barriers to new competition, these were:

1. The existence of absolute cost advantages
2. Product differentiation
3. Economies of scale

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1 See K. Borch (1968) - The Economics of Uncertainty, Princeton 1968.

2 See Hay and Morris (1979, p.411) Footnote.

The resulting impact of these barriers allows existing firms to charge a price which was above that at which would prevail under perfect competition, i.e. above long-run average costs. However, the incentive to deter entry into their market would ensure that existing producers would charge a 'limiting price' and therefore this 'limit price' and more generally the attitude of incumbent firms to potential entry becomes a fourth barrier to entry.

Despite the voluminous literature on the subject of entry barriers and widespread empirical work, most of the studies have focused on the industry's structure (and entry structure) and profitability rather than entry behaviour as such[1].

Cross (1981) however, provided empirical support for certain barriers to entry. He found that the cost of set-up in an industry was significantly and negatively related to rates of entry[2]. This backs up earlier work by Orr (1974) in Canada who found that capital requirements acted as high barriers to entry. However, Whittington (1983) was unable to find any relationship between barriers to entry and geographical differences in new firm formation rates.

An alternative approach to the study of entry barriers was used by Yip (1982) who noted that there had been two stages in the development of entry barrier theory. The first stage was Bain's formulation of the concept in relation to new-born firms (i.e. the establishment of a new firm with new productive capacity). The second stage included existing firms as potential entrants. Yip proposed a third stage which allowed for heterogeneity in

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1 See Yip (1982, pp.35-37) - "Theories of barriers should be confined to the proximate issue of entry behaviour rather than the second order issue of profitability".

2 Cross (1981, pp.165-168) also found a significant relationship between plant dominance and entry rates, suggesting that a high minimum efficient scale of production was an important entry barrier.

both products and strategies - his approach was to provide direct questionnaire data on the entrants. The approach adopted here is similar in that it belongs to this third stage (business policy orientated), but differs in two aspects:-

1. Yip's adoption of a corporate strategy perspective required him to rely entirely on entrants being existing firms, therefore, entry was either direct cross entry or by means of acquisition.

2. The behaviour of the entrants was recorded by sampling the incumbent (existing) firms rather than the entrants themselves.

The present survey samples wholly new enterprises and so data is obtained from the perspective of the entrant himself[1]. Specifically, new firm founders were asked four questions:-

1. Were you aware of any significant obstacles to your setting up in this industry as a result of existing firms products, prices, policies, etc?

2. Did existing firms react noticably to your entry?

3. If they did react, in what way?

4. Did you expect (before setting up), existing firms to react in any way?

The results are shown in Tables 7.2, 7.3 and 7.4.

It is important to note that the results shown here are based on entrants perceptions of barriers to entry and reactions of incumbants, however, while perceptions can be argued to be more relevant than amassing statistical data

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1 A review of published literature was unable to locate any other study which provides direct information on both barriers to entry, investment and pricing policy of new firms themselves.

Table 7.2 PERCEIVED EXISTENCE OF BARRIERS TO ENTRY AND COMPETITORS REACTION: ANALYSIS BY INDUSTRY SECTOR

Sector	Aware of Obstacles		Reaction of Competitors		Reaction Expected	
	Yes	No	Yes	No	Yes	No
Mechanical Engineering	4 (50)	4 (50)	2 (50)	2 (50)	1 (20)	4 (80)
Other Metal Goods	2 (33)	4 (66)	2 (66)	1 (33)	2 (50)	2 (50)
Textiles & Other Mfg.	4 (44)	5 (56)	2 (33)	4 (66)	3 (50)	3 (50)
Paper & Printing	1 (20)	4 (80)	- (-)	2 (100)	- (-)	- (-)
Wooden articles	1 (14)	6 (86)	5 (72)	2 (28)	2 (33)	4 (66)
Other services	3 (30)	7 (70)	5 (83)	1 (17)	5 (83)	1 (17)
Business Services	4 (57)	3 (43)	4 (57)	3 (43)	3 (43)	4 (57)
All	19 (36)	33 (64)	20 (57)	15 (43)	16 (47)	18 (53)

Table 7.3

	Aware of Obstacles		Reaction of Competitors		Reaction Expected		All Price Undercutters
	Yes	No	Yes	No	Yes	No	
Entrant pricing to undercut competitors	4 (26.7)	11 (73.3)	6 (40)	9 (60)	4 (26.7)	11 (73.3)	15 (100)

Source: Survey (South Wales, 1985)

Table 7.4 PERCEIVED EXISTENCE OF BARRIERS TO ENTRY AND COMPETITORS REACTION

ANALYSIS BY SIZE OF START-UP

Number of Cases

(Figures in parenthesis are percentages)

Size		Aware of Obstacles Yes	Aware of Obstacles No	Reaction of Competitors (Significant) Yes	Reaction of Competitors (Significant) No	Expected a Reaction Yes	Expected a Reaction No
Labour	1	8 (35)	15 (65)	5 (31)	11 (69)	5 (33)	10 (66)
	2	8 (38)	13 (62)	9 (60)	6 (40)	9 (53)	8 (47)
	3	3 (75)	1 (25)	2 (100)	- (-)	1 (100)	- (-)
	4	- (-)	3 (100)	1 (50)	1 (50)	1 (100)	- (-)
All		19 (37)	32 (63)	17 (48)	18 (52)	16 (47)	18 (53)

Capital	Aware of Obstacles Yes	Aware of Obstacles No	Reaction of Competitors (Significant) Yes	Reaction of Competitors (Significant) No	Expected a Reaction Yes	Expected a Reaction No
less £1,001	4 (28)	10 (72)	4 (33)	8 (67)	5 (45)	6 (55)
£1,001-10,000	10 (42)	14 (58)	7 (47)	8 (53)	5 (38)	8 (62)
£10,000+	4 (36)	7 (64)	6 (86)	1 (14)	6 (67)	3 (33)
All	18 (37)	31 (163)	17 (50)	17 (50)	16 (48)	17 (52)

Source: Survey (South Wales, 1985)

on barriers, the limitations of interview techniques particularly in documenting people's perceptions must be borne in mind[1]. One final point of clarification is that barriers to entry should be strictly those barriers or disadvantages that the entrant has against existing firms, in principle therefore, these barriers are separate from any disadvantage size may have treated on its own. As such the main purpose of this section is to identify the importance of competitors reactions as a barrier to entry.

Slightly over a third (36%) of respondents claimed that they had been aware (pre-entry) of significant problems to entry which were the result of the behaviour of existing firms in their eventual market of entry[2].

Of course the height of entry barriers is strongly related to the various market structures and indeed the perceived importance of reaction barriers is industry specific (see Table 7.2). Only one founder in the 7 wood/furniture manufacturing industry claimed to be aware of such obstacles, in contrast to the 57% who identified entry problems (specifically related to existing firms behaviour) in the business services sector. More generally the final goods markets, particularly in the 'other' services sector were significantly less aware of obstacles than intermediate markets.

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1 The definitions of 'significant obstacles' and 'noticable reactions' were left to individual founders to define (no guidelines were given), despite this it was thought that the responses were a general indication of 'significant' barriers to entry.

2 This does not mean of course that only a third of new entrants had encountered (but by definition overcome) 'barriers to entry' because a number of problems in setting up the business may have directly reflected specific barriers to entry, particularly the availability of finance (see latter).

Bain (1956) classified the cases of entry barriers into 4 types[1]:-

1. Easy entry

2. Ineffectively impeded entry

3. Effectively impeded entry

4. Blockaded entry

By definition, however, the perceptions of entry barriers detailed in this survey cover only the first two cases and yet the other cases, also, although not sampled, crucially rely on perceptions of barriers to new firm formation.

In effect there are two barriers to entry which derived from the behaviour of existing firms. The first is the behaviour of firms in terms of pricing, product proliferation and marketing in general under the threat of entry. The second is the perceived behaviour or reaction of incumbent once entry has taken place[2].

In fact different assumptions about what the entrant expects to happen if he enters the market leads to very different outcomes.

In Bain's model for example[3] four cases can be identified:

1. Entrant expects incumbants to keep their prices at the pre entry level.

2. Entrant expects incumbants to keep their output constant.

3. Entrant expects incumbants to partly decrease output and partly to allow prices to fall.

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1 See also Hay and Morris (1979) Ch.9.

2 The perceptions of the entrant or prospective entrant are the important concerns here.

3 See Koutsoyannis (1975) pp.296-300.

4. Entrant expects established firms to increase output (forcing price below L.A.C.)

The first two cases basically are dependent on an expected passive reaction of the incumbent, the entrant would not expect a reaction from existing firms. The last case is one where a specific reaction is expected by the founder and case 3 is an intermediate position. In order to provide some indication of the perceived importance of expected incumbents reactions as barriers to new firm formation, Table 7.2 shows the number of new firms who had expected (before start-up) a reaction from competitors when they entered the market for the first time. Furthermore, since reaction patterns are likely to be industry specific, the data is presented at the industry level.

The results show that 47% of respondents[1] had expected a reaction of some noticable kind from existing firms, suggesting that about half of the sample could be represented by either of the first two cases, i.e. Sylos or Bertrand postulate) and the other half were represented by cases 3 or 4.

20% of founders in metal manufacturing industries had expected a reaction from competition (yet 50% actually experienced a competitive reaction after start-up), whereas as many as 83% of new firm founders in the 'other services' sector had expected some form of incumbant reaction.

The actual, as opposed to expected reaction, was only slightly underestimated by certain founders with 57% of new firms noticing a significant reaction of incumbant companies (compared to 47% expecting a reaction). The only survey available with which to make comparisons is that undertaken by Yip (1982, pp.118-119). He found that the response to entrants by existing firms was 'virtually

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1 Data was obtained on only 34 cases for the question. Expectations of specific expected reactions were not required in interviews.

non-existent' being around 10 to 20% of firms responding competitively. Yip argues, therefore, that extensive reaction in the light of entry is not well supported by his evidence[1].

The considerable differences in the importance of incumbant reaction patterns between the present survey and that of Yip can probably be accounted for by the differences in entrant samples since Yip's data was for entry by existing firms (either direct or by acquisition).

The evidence based on these two surveys suggests that the reaction pattern is virtually non-existent for acquisition entry, generally low for direct cross entry and considerably more significant for wholly new independent firms (as in Bain's original case) than for existing firms. In other words reaction barriers to entry are generally higher for new independent firms than other modes of entry.

Table 7.4 analyses the perceptions of the founders and competitors reactions according to the size of initial start-up measured by both capital employment and labour involved.

There appears to be no strong relationship between awareness of obstacles to entry and eventual size of entry. A relationship between size and expectations of incumbant reactions is, however, noticable with only a third of all sole traders (and no other employees) expecting a reaction compared to all firms starting with 3 or more employees (and just over half with 2 people employed). As the initial scale of start-up increases, therefore, barriers to entry as a result of expected incumbants reaction increase.

Actual reactions of existing firms were closely related to initial size and overall, tended to be closely approximated by expectations of reactions. Interestingly, founders starting with £1,000 or less capital tended to overestimate incumbant reactions at start and those with

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1 Yip was unable to obtain data on the perceptions of incumbants reactions by the entrants themselves.

over £10,000 launch capital tended to slightly underestimate the level of reaction likely.

The most important single reaction of existing firms was to cut their prices (mentioned by over a quarter of the firms which reported competitive reactions). Other aspects of the marketing mix were used against a number of entrants with founders reporting an increase in the competitors advertising and offering better terms such as support servicing in 17% of cases. Such reaction patterns are those predicted by standard barrier theory, however, around 40% of the reported reactions to entry were largely miscellaneous with previous employers threats against the new founders, threats of court actions and even physical violence and slander from existing firms. In addition to this, almost 1 in 5 founders reported that their competitors were putting pressure on mutual suppliers to offer less advantageous terms to the new entrant. This supplier pressure was only evident in final goods industries and seems to be an important technique of limiting entrants behaviour in these cases. However, it is doubtful whether this type of reaction would have been forseen by potential entrants and so is unlikely to be reflected in the height of reaction barriers to entry, even in the final goods sector.

Barriers to Entry and the Screening Process

Whatever the cause of barriers to entry into particular markets the basic mechanism by which these barriers are assessed (as a whole) is the financial screening process[1]. Proposals for funding made to third party financial institutions (usually one of the clearing banks) are accompanied with discussion on the feasibility of the project in general, based on the assimilation of

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1 The financial screening process was discussed in detail in Chapter 5. The two fundamental screening processes are of course: (a) the personal assessment screen and (b) the third party assessment screen. We concentrate on the latter particularly financial screening since over 2/3rds of new firms actually went through this process. However, a practical discussion of self assessment criteria can be found in Stancill (1981).

information on individual characteristics, potential markets, types of product, competition (including competitors reactions), advantages and disadvantages of new firms compared to existing firms and products culminating in the cash flow and profit and loss accounts. That is all the various barriers to entry are assessed by the financial screening process and therefore this stage becomes the effective mechanism by which barriers to entry are formulated and evaluated in the last resort (see Figure 7.1.)

The important point to make is that these barriers (what may be called primary barriers) are then effectively weighted according to the importance attached to each of the criteria adopted by the screening process itself. In other words further research on entry barriers to new competition might beneficially aim to study the screening filter as such and to identify how the various primary barriers are modified, assessed or weighted according to this process which itself becomes a secondary barrier to entry.

Consider the case where the primary barrier to entry is mainly due to start-up costs. If these barriers are high (as opposed to low) then one may expect a lower rate of entry, this however, may be due to either:-

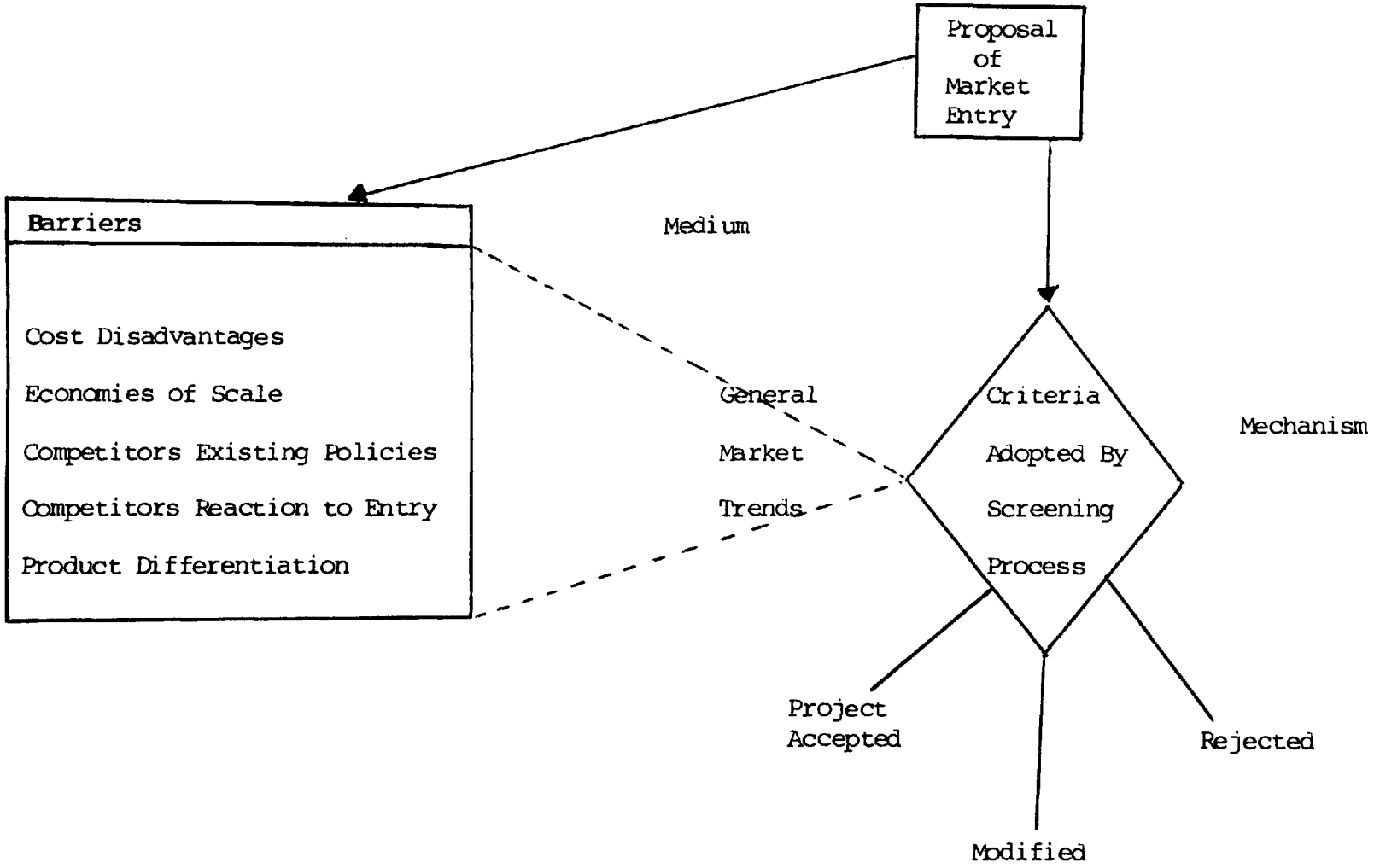
a) The nature of the financial screen is uniform (according to the importance of criteria assessed) over all sizes of funding required, then lower rates of start-up will be observed since a higher proportion of founders will require to obtain outside funding (and therefore, risk being turned down).

b) The nature of the financial screening process is not neutral over all sizes of funding required, specifically that the criteria becomes more stringent as larger sums are required, therefore, the rate of acceptance and eventual entry (due to this secondary barrier) will be reduced.

In practice actual barriers are likely to fall somewhere between these two cases and therefore, becomes necessary to analyse the relatonship between the screening process and primary barriers to entry. Such analysis could be the subject of further research.

Financial Screening and Barriers to Entry

Figure 7.1



Two further points to emerge about barriers to entry are:-

1. It will be shown that a significant number of founders regard their entry as basically a differentiated product from their competitors. This suggests that an analysis of barriers to entry should include strategies in spatial competition (e.g. Hay, 1976). Probably more appropriate however, is the distinction made by Caves and Porter between fringe and core groups within markets. In this view it will be easier to enter fringe markets than the core, typically the fringe is composed of small specialist producers. This frequent entry of minor competitors does not indicate low barriers for firms wishing to become major competitors (in the core), (Yip 1982, Chapter 2). Caves and Porter suggest that new firms tend to enter the competitive fringe of markets, whereas existing firms tend to enter the oligopolistic core.

   This view is supported by the evidence of this survey, since it could be argued that almost all of the new indpendent firms sampled had entered a type of fringe group in their various markets.

2. Table 7.3 shows the perceived existence of barriers to entry and competitors reactions for the 15 firms who specifically entered the market by undercutting their competitors prices. A lower proportion of founders adopting this aggressive stance were actually aware of obstacles to their entry due to existing firms pricing policies than for the sample as a whole. While it is also noticable that few of these firms actually expected a reaction from their competitors, it is most surprising to find that this group experienced less incumbant reaction than for those entrants pursuing less aggressive policies. The explanation of this apparent paradox probably lies in the extent to which product differentiation plays a part in pricing decisions at start-up. It is to these pricing practices that we now turn.

The Pricing Decisions of New Firms

An extensive search of the literature has revealed that one of the least researched aspects of new firms is the methods of pricing used in practice. This is most surprising for at least two major reasons:-

1. The extensive literature on the theory of limit pricing and potential competition in general is concerned with the interdependence of the new entrant with the existing firms in the industry. Specifically, certain reactions are postulated, the extremes of these are, of course, the Sylos postulate, where the entrant expects the established firms will continue to produce the same level of output after his entry and the Bertrand postulate where the rival will keep his price constant irrespective of his own pricing decisions.

   Both of these mean that the pricing decisions of new firms when they first enter the market are of vital importance to the pricing policies adopted by existing firms in various market structures. Despite the importance to theory it seems that there have been no studies of how new firms actually price their products on entry into a particular market.

2. Although not directly mentioned by new firms as a specific problem, particular neglect of pricing and pricing methods can be the very root of evils which are observed or mentioned. For example, Jackson et al (1979) quotes a study of small businesses in New York State which found that business areas which are determined by the entrepreneur himself tend to receive only a residual attention, whereas those problems which could be argued to be externally imposed consumed most of the attention of the businessmen in the sample. In the present survey Table 6.1 (Chapter 6) shows that almost 40% of the problems encountered by new firms were directly market or finance related, but a significant proportion of these could have their root cause in inappropriate pricing policies adopted.

The neglect of pricing policies by the literature is not confined to the 'special case' of the new firm, but is also apparent in the literature of small firms in general.

In the U.S. in 1979, Jackson, Hawes and Hertel undertook an extensive search of literature on the subject of pricing in small businesses and concluded that:-

> "The literature on small business pricing and advertising practices is nearly non existent". (p.22)

They quote a survey carried out by Haynes on the pricing practices of 88 medium sized firms in Kentucky in the early 60's, but continue -

> "The present authors were unable to locate any other reported study of small business pricing practice in the literature". (p.23)

Confirming this view it is noticable that the Bolton Committee (1971) made no reference to the potentially important role of pricing policies and problems in small firms.

Oxenfeldt (1960) points out that - "a significant gap exists between pricing theory and pricing application". Furthermore, this gap is likely to be larger for the vast majority of firms (small) than for the large firms pricing policy which has been the subject of considerable theoretical study. Taking this one step further the pricing of new firms products both in theory and practice is a significant gap in the literature and an area which can potentially have implications for existing industrial pricing theory, for limit pricing theory, for entry mechanisms and for the role and significance of new firms to local, regional and national development. Before these are discussed in more detail it is necessary to briefly review some of the most important theories of pricing behaviour for firms in general.

Pricing - A Brief Review

There is no widely accepted view on how firms actually make their pricing decisions. The price of a product is generally to be taken as only one element of the 'marketing mix' and combined with the large number of possible situations in which pricing decisions have to be

made[1], it is possible that for some purposes at least it is not necessarily useful to generalise about pricing procedures[2].

However, the role of pricing has been central to microeconomic analysis since Adam Smith exposed the 'Invisible Hand'. The neoclassical economic theory from the profit maximising assumption and the continuous functions of cost and revenues allow the techniques of differential calculus to be used to derive a firm's price/output levels. Marginalism was capable of being applied even in extremes of market structure and the early structure - conduct - performance paradigms were derived from comparing idealised monopoly with perfect competition.

Marginalism implies that profit maximising firms would calculate the marginal cost of output at different levels and set it equal to the marginal revenue obtained at each unit of output. If firms did not hit on the right combination of price and output then it was assumed that a process of iteration would occur - iteration itself being the practical method of incremental or marginal costing by which profit maximisation could be obtained.

The development of models to explain the instances of monopolistic and oligopolistic market structures introduced the idea of interdependence to varying degrees. Despite this considerable complication the basic incremental approach to price or output decisions was still assumed to be the dominant underlying mechanism.

The publication in 1939 of a study of interviews with 38 businessmen by Hall and Hitch began what is now known as the 'marginalist controversy'. Their study showed that firms were not using the marginalist principle (MC = MR) and therefore did not attempt to maximise short run

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1 A.M. Alfred - Comparing Pricing Policy, Journal of Industrial Economics, No.1, November 1972.

2 D. Hay & D. Morris - Industrial Economics Theory and Evidence (1978), p.13.

profits. 30 of the 38 businessmen arrived at a price by calculating (or guessing!) unit costs and adding to these a profit margin which was - (a) desired; (b) normal, or (c) conventional. This was the average cost pricing principle.

Two basic reasons for average cost pricing methods were suggested:

(a) firms having very little idea of their demand curve and so are unable to identify marginal revenue schedules and even marginal costs are not easily identifiable[1], so that the basic lack of information on both sides prevents the application of the marginalist principle.

(b) firms (at least in interviews) reported that the cost plus price is a 'fair' price.

A review of the empirical evidence on pricing is provided by Hay and Morris (1978) who quote studies by Fog (1960), Fitzpatrick (1964) and Skinner (1970), all of which had the same general conclusions to the Hall and Hitch survey. While the dominant method of pricing does seem to be that based on average cost, the interpretation of this for marginalism is to say the least ambiguous.

The next significant development was the recognition of potential competition - something neglected in the neoclassical theory of the firm. The theory of limit pricing of Bain, Sylos Labini, Modigliani and others effectively predict that in certain cases price (which Hall and Hitch reported to be the main preoccupation - not output) would be below the level where MR = MC in order to make entry less attractive to potential competitors.

As Koutsoyannis (1975, p.274) notes, the average cost pricing has a strong link with entry preventing behaviour. Existing firms in the industry who intend to stick (rather than snatch) will ensure that abnormal profits are

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1 Sizer (1966) reviewing the accountants contribution to pricing decisions notes that the 'run of the mill' accountant provides cost data more relevant to full cost than marginal costs.

insufficient to attract new entrants, to do this they will be observed to be setting average cost close to price (average revenue) plus some margin which will include the traditional normal profit. According to Koutsoyannis price determination is made up of two distinct stages:-

1. Firm finds its 'desired' price level - a reasonable profit subjectively determined.

2. Firm compares this desired price with entry prevention price depending on the heighth of barriers to entry.

In order to derive a subjective estimate of price, it is necessary to standardise fixed costs at a budgeted level of output. Average fixed costs can then be calculated and these have to be included in the gross profit margin along with the firms desired net profit margin to cover risks and yield a fair investment to capital employed. The gross profit margin is then added to the average variable cost curve to obtain the desired price.

In the second stage of the decision, however, this desired price will be compared to the level at which the entry from potential competitors may occur. If barriers to entry are high a price allowing abnormal profits to be made may be charged. If, however, entry is relatively easy the gross profit margin would be cut from the desired price to a lower price. Koutsoyannis notes that - "the average cost pricing model apparently discards demand curves" (p.275), but it must be noted that the gross profit margin and therefore price (at the standardised output) will be competitively determined by potential new entrants.

It should be noted that the approaches to pricing methods, as described, have one thing in common - profit maximisation. Other developments in the theory of the firm set up very different objectives to that of profit maximisation. The behavioural models characterised by the Cyert and March model treat the pricing decision as a tool for obtaining certain goals and aspirations of members of the firm - while emphasising the satisficing of these goods (not maximising) - no exact predictions can be derived from these models.

Most of the so called managerial theories of the firm also have little say on the pricing decision. Marris for example takes the price as given for his model and treats price as a parameter for his model and not an actual policy variable of the firm (Koutsoyannis, p.357), the exception is Boumol's theory of revenue maximisation. Since price will be set at a level which maximises sales (or a constrained level of profit) and so will be set at a level where marginal revenue becomes zero and is therefore at a price below that found by firms pursuing profit maximisation.

The aims of the rest of this chapter are:-

1. To review the limited number of studies reported on pricing practices in small firms.

2. To present the findings of the present survey on pricing practices in wholly new independent firms:-

    a) at start up

    b) currently

3. To discuss whether any of the pricing models discussed above can be used to explain pricing policies of new firms.

Pricing and the Small Firm

Despite the proliferation of research into the small business sector in recent years, the published literature on small business pricing is very limited. Only 4 studies have been found relevant to pricing methods in small firms[1].

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1 The study by Haynes in the early 60's for the U.S. was mainly for medium sized rather than small firms. He found that cost plus was less rigidly applied than earlier studies had suggested and show some adaption to market condition over time. (pp.21-23 Jackson et al, 1979).

Ford and Rowley (1979) undertook a survey of small U.K. industrial firms in order to examine the use of marketing concepts and ideas (from the marketing literature) by smaller companies. They state:-

"Pricing was less aggressive in owner managed companies (than professionally managed counterparts), with prices normally following costs, plus a reasonable profit margin, with some consideration to competitors pricing. There was little differentiation in pricing of different types of product sold or to different customer groups served ..... The professionally managed companies tended to be more flexible with margins varying according to each market situation and there was a general willingness to negotiate with each major customer, rather than apply a fixed pricing structure".

(ibid p.152)

Kinsey (1983) reported the findings of a survey into the marketing methods of 50 small manufacturing firms in Scotland and found that price tended to be based on a cost plus approach and that price was "considered one of the most important elements of the marketing mix". (ibid p.12).

With both these studies the study of pricing methods was only secondary to their main focus of attention and so their observations were not fully discussed and indeed, give very little detail to small firm pricing practice.

The aim of the third study by Jackson, Hawes and Hertel (1979) was specifically aimed at identifying how small business persons set their retail prices (and advertising practices). Their survey was based on 107 tourist oriented gift shops in the western part of the U.S. in the mid-1970's. They found that:-

1. 86% of retailers indicated that price changes by competitors did not affect their own price.

2. Of those retailers effected by competition prices, 60% indicated that their price changes were a retalitory price (defensive) cut.

3. 40% regarded their prices as being essentially the same as their competitors, 30% thought that they actually charged less than competitor retailers and only 1 in 10 had no idea what their competition was charging.

4. Supply or cost based approaches to pricing dominate the various methods used by small retailers (demand orientated pricing approaches were used by only about 13 to 23% of the respondents).

5. Only a few firms used any form of objective assessment of their costs in order to calculate the cost plus price. Most of the cost based approaches were in fact rather arbitary. ibid p.28.

Jackson et al conclude that their survey confirms recent data in the widespread use of cost plus pricing and as many as 86% of firms followed "fairly rigid" patterns in pricing which de-emphasise demand based factors.

In order to derive a more comprehensive picture of the dynamics of the pricing process in new firms a distinction is made between the methods and practices adopted by the firm at the start-up stage itself and at the time of interview. In the former case founders were asked to describe their pricing practices when they first started trading. By the time of interview founders will have had considerably more experience in their relative markets and will have assimulated and probably reacted to the initial reactions of their clients to their early pricing (and marketing in general) policies. Comparisons of these two situations offer a unique opportunity to analyse the dynamics of pricing in small firms in their infancy.

Pricing and the New Firm

A survey of accounting procedures in recent Scottish start-ups, undertaken by Arnold McCulloch (1983) is the only one so far traced that provides data on pricing methods in new firms. His results can be summarised:-

Table 7.5 Pricing Methods in Recent Scottish Start-Ups

Pricing Method Business	Sector	
	Manufacturing	Service
Market based	3	6
Cost based	1	3
Cost & market factors	2	4

Source: Adapted from McCulloch (1983, p.5 and p.10).

Despite the very small sample this suggests that market based systems are more important in recent start-ups than those found by either Jackson et al for small retailers in the U.S. or Ford and Rowley for small U.K. manufacturers. The implication of this is that firms on start-up conform more closely to the market based pricing theories than they do after some experience in the market, i.e. become existing small firms. However, such conclusions cannot be made from this data, since the pricing methods reported by McCulloch were those currently being adopted by the firm and not the pricing methods practiced at start-up, in other words there does not appear to be any study of pricing 'policies' adopted by new firms when they first start trading.

The various base models of pricing decisions are derived largely from the different goals which are assumed to be the main objective of the firm. Before discussing actual pricing behaviour, therefore, it is necessary to review the stated objective of the firm founders at start-up.

Table 7.6 lists the responses of firm founders[1]. At first sight it seems that the variety of goals - the market share goal, the profit goal and the importance of the satisfactory profit goal strongly support the behavioural theory of the firm developed by Cyert and March. However, only a small minority of firms mentioned more than one goal and apart from the profit goal the most important objective of these firms at start-up was not surprisingly - survival. (30% of mentions).

Apart from the possible difficulties of bias inherent in such a small sample, difficulties of interpretation may be even more significant. Hay and Morris argue that many responses to questions on objectives of firms tend to be almost public relations exercises - providing 'acceptable' answers[2]. Indeed responses with words like 'maximisation' were minimal. Only two founders claimed to be pursuing profit maximising objectives, but overall the profit motive (to maximise or satisfice) was the most important single goal. Finally, 20% of mentions were specifically that pricing policies were aimed at securing a certain market share.

How then do new firms actually price? Each founder was asked to explain in his own words how they set a price to their product or service when they first started trading. (The responses were categorised and the coding frames used can be seen in Appendix C). The results are produced in Tables 7.7, 7.8 and 7.9.

Taking the responses of the entire sample, Table 7.7 shows that the most widespread idea behind start-up pricing is what may be called 'benchmarking'. This is where founders specifically take competitors prices as a starting place or benchmark and then either decide to charge the same price or undercut that price. There were no instances of benchmarking and then charging a higher price. Taking

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1 It must be emphasised that this question received a low response rate - only 25 out of the 57 firms seemed to understand the basis of the question. (Further prompting by the interviewer would have reduced the confidence of the results even more).

2 Hay and Morris (ibid, Chapter 8, p.266).

Table 7.6 STATED GOALS OF NEW FIRM FOUNDERS*

Goals	Goals at Start-Up - 'New Firm'		Goals Currently - 'Small Firm'	
	No.	%	No.	%
Survival	9	30.0	3	14.3
Satisfactory Profit	10	33.3	5	23.8
Profit Maximisation	2	6.7	3	14.3
Revenue Maximisation	2	6.7	3	14.3
Market Share	6	20.0	4	19.0
Other	1	3.3	3	14.3
All	30	100	21	100

Source: Survey (South Wales, 1985)

* Note: This question had a low response rate.
Only 25 of the 57 firms could be used with confidence.

Table 7.7 INITIAL PRICING CATEGORY: ANALYSIS OF MENTIONS BY INDUSTRY OF ENTRY

(Percentages in parenthesis)

Method of Pricing \ Sector	Mechanical Engineering	Other Metal Goods	Textiles	Printing & Paper	Wooden Articles	Other Services	Business Services	All
Undercut Competitors	3 (25)	1 (8.3)	3 (21.4)	1 (12.5)	4 (28.6)	3 (16.7)	2 (16.7)	17 (18.9)
Same Price	- (-)	1 (8.3)	- (-)	1 (12.5)	- (-)	- (-)	2 (16.7)	4 (4.4)
Same Price (but also better/different product)	1 (8.3)	2 (16.6)	2 (14.3)	3 (37.5)	5 (37.5)	4 (22.3)	2 (22.3)	19 (21.1)
Cost Plus (except where specified elsewhere)	3 (25)	2 (16.6)	2 (14.3)	3 (37.5)	1 (7.1)	3 (16.7)	3 (25)	17 (18.9)
Guess Crude Prices Discrimination	3 (25)	3 (25)	1 (7.1)	- (-)	2 (14.3)	2 (11.1)	1 (8.3)	12 (13.3)
Set Elsewhere	1 (8.3)	1 (8.3)	2 (14.3)	- (-)	2 (14.3)	2 (11.1)	1 (8.3)	9 (10.0)
Other	1 (8.3)	2 (16.6)	4 (28.6)	- (-)	- (-)	4 (22.2)	1 (8.3)	12 (13.3)
All	12	12	14	8	14	18	12	90 (100)

Source: Survey (South Wales, 1985)

NOTE: PERCENTAGES ARE VERTICALLY PROVED

together the pricing methods which can be subsumed within 'benchmarking' it can be seen that 44.4% of all mentions were of this type which means almost 60% of firms in this survey used this method.

Of firms benchmarking their prices the numbers actually aiming at undercutting competitors were slightly less than those who decided to charge the same price.

Bearing in mind the 'open' nature of the question it was most surprising to find that of the 23 firms that said they aimed at charging the same prices as their competitors, 19 also stressed that their product or service was better or different to their competitors anyway. This suggests a pricing model based on product differentiated characteristicss may be of relevance to start-up pricing practices.

Cost plus pricing does appear to be important to new firms; between a third and a half of all firms used some variant of the approach, but only 18.9% of mentions by founders used cost plus which did not relate to benchmarking, the remainder calculated their cost base but their margin was almost totally determined by their policy on undercutting or equalling competitors (sometimes distant competitors) prices. In general, it seems that the cost plus approach is significantly less important for pricing decisions of wholly new firms than either small firms in general (Jackson et al) or industry as a whole (C.F. Hall & Hitch, Fog, or Akin & Skinner, 1976). Furthermore the mark up margin varied considerably - two firms who thought they had very little or no competition doubled their costs (P = Cost + 100%) to derive initial price while an engineer working from home at start-up charged only his costs with no mark up whatsoever.

Finally, 10% of mentions stated that their prices were generally set by a third party (such as a franchise or set by a supplier) and were not, therefore, a policy option at the start-up stage. The 'other' group is a catchall for specific mentions such as a constant price guarantee, types of price haggling or setting a price to cover living expenses.

Table 7.8 INITIAL PRICING METHOD: ANALYSIS OF MENTIONS BY BROAD INDUSTRY SECTOR

PRICING

Sector / Mention	Metal Manufacturing No.	%	Other Manufacturing No.	%	Services No.	%
Undercut Competitors	4	16.7	8	23.5	5	17.9
Same Price	1	4.2	1	2.9	0	-
Same Price (but also better/different product)	3	12.5	10	29.4	6	21.4
Cost Plus (except where specified elsewhere)	5	20.8	6	17.6	6	21.4
Guess Crude Price Discrimination	6	25.0	3	8.8	3	10.7
Set Elsewhere	2	8.3	2	5.9	3	10.7
Other	3	12.5	4	11.8	5	17.9
All	24	100	34	100	28	100

Source: Survey (South Wales, 1985)

Table 7.9

Initial Pricing Method:

Analysis of Mentions by Type of Product

Pricing Method	Final		Intermediate	
	No. Mentions	%	No. Mentions	%
Undercut Competitors	8	14.8	6	16.7
Same Price	-	-	2	5.6
Same price (but also better/different product)	14	25.9	6	16.7
Cost plus (except where specified elsewhere)	8	14.8	6	16.7
Guess Crude Prices Discrimination	15	27.8	7	19.4
Set Elsewhere	4	7.4	3	8.3
Other	5	9.3	6	16.7
All	54	100	36	100

Source: Survey (South Wales, 1985)

Standard price theory predicts that prices will depend on the various forms of market structure, since it is not possible to classify these objectively, however, Table 7.8 shows the initial pricing methods used by new firms classified by broad industry sector.

The practice of initial benchmark pricing dominates the 'other manufacturing' sector, 55.8% of mentions compared to 39.3% in service sector and only 33.4% in metal manufacturing. This last figure is partly explained by the low element of product differentiation in the metal manufacturing sector as shown by only 3 firms claiming a different or better product to the competition. It is also noticeable that initial prices in the metal manufacturing sector have an important element of 'no policy' or crude guessing involved with them.

Alfred (1972) argues that consumer goods will require a different pricing procedure to industrial goods. The distinction made here is between final and intermediate goods (Table 7.9). There are no striking differences in both the practice of benchmarking[1] makes up around 40% of mentions. Although product differentiation is used relatively more as a basis for same pricing policies in final goods than intermediate products.

As Kinsey reported, price was considered to be the most important element in the marketing mix. Specifically, firms were asked to identify the nature of the comparative advantage they have (if at all) over the competition. Sixty percent of firms identified price, i.e. 31% of all mentions - multiple responses were permitted. Second in importance was the quality of the product (Table 7.10) with 16% claiming that additional customer service, including after sales, was an important source of competitive advantage. Again, the main sources of comparative advantage (and 52 of the 57 firms thought they had some form of advantage) were not correlated with the types of product or service. It is noticeable, however, that new firms producing final goods relied more heavily

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1 Benchmarking includes: (a) undercutting competitors; (b) same price; and (c) same price but better product - different product. (See Tables 7.6 and 7.8).

Table 7.10 PERCEIVED SOURCE OF COMPARATIVE ADVANTAGE:

ANALYSIS OF MENTIONS BY TYPE OF PRODUCT

Product type / Advantage	Final		Intermediate		All	
	No.	%	No.	%		
Price	17	(29.8)	14	(32.6)	31	(31)
Quality	13	(22.8)	11	(25.6)	24	(24)
Delivery	7	(12.3)	2	(4.7)	9	(9)
Contacts	2	(3.5)	4	(9.3)	6	(6)
Availability	5	(8.8)	2	(4.7)	7	(7)
Additional Service	8	(14.0)	8	(18.6)	16	(16)
Location	5	(8.8)	2	(4.7)	7	(7)
All Mentions	57	(100)	43	(100)	100	(100)
No. of Firms responding	29		23		52	

Source: Survey (South Wales, 1985)

on location and delivery as sources of advantage than those producing intermediate goods. For this last group personal contacts were perceived to be a more important element of advantage[1].

Theory and Evidence

The nearest the pricing literature comes to explaining the determination of price in wholly new firms is the literature on new product pricing. Of course, a new firm is not necessarily the same thing as a new product, but it is helpful to review some of the arguments put forward to explain the process of new product pricing.

Dean (1950) argues that the strategic decision in pricing a new product is the choice between -

(a) skimming: a policy of high initial prices that skim the cream of the demand

(b) penetration: policy of low prices from the outset in order to penetrate deeply into the market place.

Gabor (1977) following Dean, classifies new products according to their degree of substitutability. New products can be - (a) functionally identical; (b) functionally similar; and (c) functionally unique, (ibid p.212). Each of these cases would require a different approach to pricing.

Functionally unique products should generally have a skimming price with initial price being approached from above, however, the very nature of the unique product means that pricing must be largely based on intuition with no obvious benchmarks available. The only exception to this is where the new product results in an identifiable cost saving to customers. In such a case a sharing of the saving can be used to set ranges for the price of the unique product.

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1 Based on this empirical work Appendix D provides a conceptualised model of new firm pricing in the representative new firm.

Of the 57 firms surveyed only one could be classified as providing a functionally unique service. This company originated what it calls a business incentive scheme - essentially it coordinates and markets management perks for personnel departments of large companies (such as special holiday breaks for meeting production targets). There was no competition of this kind operating anywhere in the U.K. at the time of start-up. The actual pricing practice adopted was, however, in no sense of the word a skimming price, the price was not in fact set by a typical cost plus method with a mark up of 25%. When asked how they charged their prices at the time of interview, the founders admitted that the prices charged at start were significantly lower than they could have charged with hindsight (even to the point where customers were suspicious about their low prices). The margin has risen so much that prices charged have risen over 50%, a real increase of 35% in less than two years. At the time of interview this firm knew of at least two (London) competitors offering the same service. Obviously their low price, while not deliberately set to prevent competitors entry and could not be regarded as a penetration price, did not do so anyway and it seems they have lost much of their scope for skimming demand.

The price of both the functionally identical and similar products will be more or less determined by the price structure ruling in its market and most call for a penetration pricing policy. Gabor notes that - "the proper process with a new brand (of this kind) is to choose the price first and derive from it the appropriate limit for cost of production", (Gabor, 1977, p.227), i.e. cost plays only a limited role in new product pricing.

Of the 57 firms in the survey only 4 could be classified as functionally similar. These were a computer generated cartoon designer; a fibreglass modular building manufacturer; a Welsh crafts brass rubbing designer and a manufacturer of mini-commercial auto cleaners. In view of the nature of these products it is surprising that the cost plus method predominated despite having few near competitors, only one charges a significant premium.

The remaining 52 firms products could not, however, be classified as, of the functionally identical class. The vast majority of them not being new products or services,

but may be differentiated from the competition by quality, service or price. Clearly then, the literature on new product pricing can only have bearing on a limited number of new firms and does not appear to explain actual practices even in these cases - another example of the 'significant gap' between pricing theory and pricing application (Oxenfeldt).

Development of Pricing Practices in Small Firms

Dean (1950) suggests that new product pricing should be adjusted throughout the life cycle of the product. In the early life of a wholly new product, markets are hesitant and unexplored, then comes market acceptance of the product and soon after, competitive encroachment results in a narrowing of pricing discretion.

The approach adopted here, however, is not the adjustment of pricing practices as a result of movements along the products life cycle, but along the life cycle of the firm. The two are not necessarily the same since the time related feedback of information from customers and the learning curve of founders (decision makers) are likely to be highly significant in the first few months after start-up and yet - (a) the product may still be in its initial stage; and (b) most new firms do not begin with a product which is in the infant stage of its life cycle.

After setting a price for their product or service, according to the methods outlined above, founders will receive various market reactions, policies may be changed and in general, a process of continal interaction will occur between the firm, its clients and suppliers. The developments of pricing practices in particular are likely to reflect this type of learning process inherent in the infant stage of the firm's life cycle.

Goals and practices of firms at the time of interview (a snapshot view of a small firm), will be compared with those prevailing at the time of start-up. Referring back to the goals mentioned by new firm founders, (Table 7.6) it can be seen that the right hand column details the goals which firms claimed to be pursuing at the time of interview. Surprisingly, the average number of goals 'stated' fell rather than increased as behavioural

Table 7.11 PRICING METHODS OF SMALL FIRMS

CURRENT PRICING METHOD: ANALYSIS OF MENTIONS BY TYPE OF PRODUCT

Product / Pricing Product	Final		Intermediate		All	%
	No.	%	No.	%		
Undercut Competitors	6	12.5	3	10.7	9	11.8
Same price	1	2.1	4	14.3	5	6.6
Same price (but also better/different product)	8	16.7	3	10.7	11	14.5
Cost plus (except where specified elsewhere)	10	20.8	9	32.1	19	25.0
Price Discrimination	13	27.1	6	21.4	19	25.0
Set Elsewhere	4	8.3	2	7.1	6	7.9
Other	6	12.5	1	3.6	7	9.2
All	48	100	28	100	76	100%

Source: Survey (South Wales, 1985)

theories of the firm would predict. Apart from this the most noticeable change or development is the significant reduction in the importance of the survival goal[1], (it now ranks along with profit or revenue maximisation).

Table 7.11 describes the current pricing practices of the firms in the interview and should be compared with the methods recorded at the initial start-up (Tables 7.6 and 7.8).

Some points to emerge:-

1. The largest single category (apart from the grouped practice of benchmarking) at start-up was 'crude guesses with very rough and ready price discrimination'. It includes responses like - "off the top of my head for each order". At the time of interview this group is still (joint) the largest classified, however, one major difference is concealed within its grouping. The crudity and unsystematic guessing of pricing had given way to almost formal types of price discrimination[2].

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1 We repeat the need for extra care in interpreting Table 7.5 due to the low informed response rate and closed nature of questions.

2 The case of a saw mill set up in the North of Mid Glamorgan is an excellent example. At start-up there was no competition with a 20 mile radius and yet charged the same prices as their competitors arguing that their flexibility and service offered a 'different product'. Current pricing has developed to basically a cost plus method, but the margin is flexible according to the volume of the order. In addition, prices quoted are standard according to location, but delivery is free. In effect this means that customers relatively close to their site are charged a higher effective price than those further away (but closer to competitors). A locational price discrimination is, therefore, implicit in their pricing structure.

2. The specific intent to undercut competitors is generally less important, particularly for intermediate products (or services). Correspondingly these firms tend to move from undercutting towards equalising prices.

3. The reported emphasis on product differentiation declined as a basis for charging prices equal to the competition, but this may have been due to the fact that founders considered they had already made their point about their product being 'different' and did not find it necessary to restate it again.

4. Cost plus methods are generally more important than they were at start-up, particularly in the case of intermediate products. However, within this group firms reported that margins are no longer dependent on their competitors as they were at start-up. In fact, 10.1% of mentions at start-up were of the cost plus kind, but with prices eventually reached which were 'not so dependent on competitors'. At the time of interview 25.7% of mentions were in this group.

5. Since the start-up only 37% of the firms had attempted to 'experiment' with the prices they charged - in the majority of cases, therefore, prices were only charged within rather narrow ranges and tended to be 'sticky'. The understanding about concepts such as the elasticity of demand functions certainly not being improved by the limited experimental pricing activities[1].

The results on small firms pricing policies described here generally conform to other studies in the emphasis put on cost plus approaches[2]. However, a number of significant differences are apparent - first, none of the firms in this study reported attempting to achieve a target profit rate as Lanzillotti (1964) found. Secondly and perhaps

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1 Note, the proportion of firms experimenting with pricing levels was almost identical for both intermediate and final goods producing firms.

2 C.F. Ford & Rowley (1979), Kinsey (1983), Jackson, Hawes & Hertel (1979), Arnold McCulloch (1983) and Lanzillotti (1964).

more significantly, none of the other studies on small firms pricing have recognised the apparent importance of price discrimination (of any form whatsoever). Related to this is the significant number of firms which recognised and stated that their product (or service) was either better or different (or both) than the competition. Again, previous studies have not reported these, presumably important characteristics of small firm pricing methods.

Price Changes

Changes in the methods of pricing adopted by firms may be expressed by changes in the actual prices charged. Moreau (1980) argues that many small firms tend to underprice their products although such statements generally require subjective assessments of a more 'correct price'. If this view is correct then given the nature of the pricing policies adopted at start-up would imply that prices would rise as the learning process gathers momentum relatively soon after start-up.

In more general terms it has been argued[1] that since small firms generally lack market power, they can have only limited effects on changes in the general price level. In other words, the establishment of a thriving, small business sector may be one way of achieving relatively inflation free growth.

Only 14 of the 57 firms charged a higher price in real terms[2] at the time of interview than at start-up. The remainder being more or less evenly divided between falls (21) and remaining the same (22) as the price index. Despite the significant numbers whose prices had risen less than the rate of inflation none of the firms in actual (or nominal) terms reduced their prices after start-up. 17 firms charged exactly the same price as they did when it was 'calculated' by pricing practices adopted

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1 See Bannock (1981, Chapter 1).

2 Indexed by R.P.I. (1985).

Table 7.12 Price Changes Since Start-Up

Price Changes	Number of Cases	
	Actual (Nominal) Price	Real (1985) Price
Fall	0	21
Same	17	22
Increase	40	14
All Firms	57	57

Source: Survey (South Wales, 1985)

when they first started trading. (In real terms the prices charged by these firms obviously fell). However, there was no evidence of any of the sampled firms practicing a skimming price policy and only one example of anything more than an unintentional penetration price. (In this last case prices have risen from substantial undercutting prices to become equal with competitors prices).

Abstracting from changes in pricing practices as the firm develops and from individual fluctuations in demand, strict adherence to average cost pricing with fixed margins would imply price increases proportional to the increase in costs, i.e. assumed to be the retail price index, that prices would remain the same (as 39% did). Furthermore, the large number of firms experiencing real price falls could be due to - (a) falling average costs on which the costing of the standardised level of output is based; and (b) reductions in the percent mark up applied by firms who therefore absorb some of the cost lead price increases. However, analysis of initial and subsequent pricing practices according to actual price changes reveals that:-

1. Firms whose prices had risen in real terms tended to pursue undercutting pricing practices[1] at start, but who subsequently realised they were underestimating market value with those based on cost plus adding substantially higher margins and often an extension of the cost base to include all overheads rather than the more direct costs.

2. For the firms whose prices had either remained the same or decreased in real terms, initial undercutting was slightly less important (than for firms whose prices rose). Cost plus methods dominated and although firms generally noted increased competition most claimed to be charging higher gross profit margins than they did initially - suggesting that falling costs over the (generally) increasing output

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1 The difference between undercutting and penetration pricing is largely a matter of degree, but can be approximated by the intentions of the policy.

levels are more than sufficient to offset rising producer prices and at the same time charge higher margins without eroding their competitive stance, i.e. prices remaining constant or even falling in real terms.

3. The firms who produce a product which they regard as 'different' usually 'better' than the competition (and yet charge initial prices based on their nearest competitors), might be thought to raise their prices subsequently as they gain more information on the market's assessment of their product - assuming that the product is better in the customer's view and not just that of the founder. Surprisingly, therefore, most of the 'better' product firms were in the groups which did not experience a real price rise, suggesting that firms were either fooling themselves about what Stancill calls the "Cadillac Syndrome"[1] ("we're the best in the field"), or that they were not pursuing 'appropriate' pricing policies for profit maximisation.

New Firm Pricing Practices and Price Theory

The neoclassical theory of the firm based on a number of basic assumptions among which is that the entrepreneur is also the owner of the firm. Since every firm in this survey was of this type then it may be argued that neoclassical theory is more relevant to new and small firms than to large concerns where ownership is divorced from control. In terms of actual pricing practice, however, the marginalist principle is of no real use.

None of the general approaches to the theory of the firm offer an adequate explanation of pricing in new firms in particular (and they were not developed to do so). The behavioural models of Cyert and March offer no practical approaches to pricing policies and are basically models of large multi-product corporations where management and personnel conflicts of interests result in a satisficing behaviour.

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1 Stancill, Nov. - Dec. (1981), H.B.R. p.68.

A similar approach is adopted by Liebenstein and his writings on the X-efficiency theory of the firm, but which is not dependent on the divorce of ownership from control. The interesting implication of the X-inefficiency is that costs themselves (notably those related to direct labour inputs) are not likely to be uniquely related to output levels.

Since labour production costs (and less quantifiable aspects such as quality) are related to effort on the part of labour which itself is the result of motivations, job security and supervision etc. - in other words the cost base itself used for average cost pricing may be a variable and not an easily identifiable or even consistent base on which pricing decisions are made.

Although models based on sales revenue maximisation also depend on the divorce of ownership from effective control, the general approach may have some relevance for new and small firms. Boumal argues, for example, that banks will be more willing to finance firms with growing sales, more so than profit. Furthermore, growing sales or market share may give significant management or entrepreneurial prestige - again more so than profit. The goals of firms reported in Table 7.6, show that together, market share and revenue goals are almost as important as general profit goals (although both less than the survival motives) and tend to increase in importance as the firm develops.

None of the firms at start-up mentioned potential competition, so apparently any methodss used are not related to potential competitors. Those using cost plus did not set gross margins in recognition of potential competition at all. This alone does not, however, imply that limit pricing is of no relevance since the majority of firms practiced some form of benchmarking where their price was set against the benchmark of their existing competitors which were predominantly other small firms[1]. If these small firms practiced a form of limit pricing, new firms would unintentially be charging prices which

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1 The 'main' competition of 29 of the 57 firms surveyed were other 'small' firms.

were aimed at reducing the rate of new entry. However, even the current price policies of new firms described in Table 7.11 do not reveal any recognition of the importance of potential entrants. Indeed, this is confirmed by other studies of small firms pricing practices since none of these make any mention of potential competition.

The new firms surveyed here have by definition recently come through the start-up process and are, therefore, likely to be aware of the 'entry mechanisms' that potential competitors can adopt, despite this they are obviously not paying much attention to possible new entrants particularly with regard to their pricing practices. Indeed the small size of the new independent firms at start-up makes a nonsense of many of the limit pricing theories which assume that the minimum efficient size of production in the industry is so large that entry (and therefore expansion) will effect the overall demand and price for the product. Limit pricing would only have a role in this case where products were sufficiently differentiated so that entry to 'one part' of the industry will have substantial effects on sub-industry or even localised demand for the 'product'.

Cost plus approaches to pricing are widespread, both at the initial start-up stage and in small firms in general. However, start-up pricing methods generally reduce this approach to little more than a rough guideline with the gross margin being largely dictated by the policy adopted with regard to benchmarking ("Do I set a lower price or a 'higher' price than my competition"?). As firms develop in their infancy cost plus policies generally become more important in that the margin is less related to competitors prices particularly with the adoption of some form of price discrimination. In general the evidence presented here conforms with numerous other studies which have noted that changes in demand and competitive conditions do have considerable impacts on the margins employed[1]. This means of course that marginal rules can still be used in theory to predict directions of changes of prices, but the application of the marginalist

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1 A review of these studies, mainly for large corporations can be found in Hay and Morris (1979, pp.119-126).

procedure is of no use in explaining how new or small firms actually derive prices for their products.

Based on the empirical evidence on new firm pricing methods presented in this chapter, a representative model of new firm pricing is suggested, and is found in Appendix D.

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CHAPTER 8

INFANT FIRM DEVELOPMENT

The Development of Business From Start-Up Coordination Stage To Young, Small Firms

Previous chapters have been mainly concerned with the process of firm formation itself, up to and including the first few weeks of trading. It was shown that the activities involved in start-up coordination are usually complex, but more especially are largely predetermined.

Once start-up has occurred, however, the coordination activities undertaken by the founder change significantly. The actions of the founder will take place (at least conceptually) within a framework of the new entity 'the firm' and rather than being predetermined, the types of coordination required to be undertaken will depend almost entirely on the 'feedback' or the initial reaction to his entry into the market. The feedback from customers, suppliers and competitors resulting from start-up coordination and policy decisions, will require the entrepreneur to react in what he regards as an appropriate way in line with his goals and motivations, thus begins the coordination of resources and decisions which may be termed continuous interaction. During this process, however, the activities of coordination become more dynamic (responsive), rather than predetermined and will continue through the infant part of the firm's life cycle.

The purpose of this chapter is to highlight some of the more important changes that occur in the coordination process which becomes one of continuous interaction. How do the founders perceptions, goals and attitudes change in response to initial feedback? How does this effect the policies adopted and, therefore, the development of the firm? Essentially we will be analysing the very early part of the firm's life cycle - its infancy (rather than birth).

Of course, during this stage a number of new firms may fail. By definition, however, the firms interviewed were the survivors and it is from the data derived from these that changes in the representative firm in the infant stages of life cycles will be evaluated.

The previous section on pricing included the developments in pricing practices of firms from the time of start-up to interview stage. It was argued that the changes in pricing methods were likely to reflect the learning process inherent in the infant stage of the firm's growth, it is therefore, necessary to view the whole range of changes that take place in the development of new firms as symbiotic.

It will be recalled that the survival goal of new firm founders tended to be less important at the time of interview than it was at the start-up stage (Table 7.6) and this was mirrored by an increase in the importance of those goals which could be directly related to growth.

This is the type of behaviour which might be predicted by the various biological theories of the firm which draws an analogy between the firm and the life cycle, of living organisms, birth, starting small, maturing, producing offspring and eventually dying. (Curwen, 1976, p.24).

Biological theories may have particular relevance to the infant firm since these theories assume that firms have to adopt to their environment, whereas larger firms are in the Galbrathian sense able to actually change their immediate environment, small and particularly new firms have to take it as given and adopt the best they can.

Such theories predict that firms aim for stability (homeostasis) and adapt to disturbances in order to maintain a desired 'state' (ibid. p.123). To do this, firms decide a set of norms which can be copied from other firms, such norms may be a particular relationship between cost and price for example.

Similar predictions can be made from models based on satisficing behaviour if they are extended to include a survival goal explicitly rather than implicity assumed. When there is general concern for survival (as at initial start-up), then firms may make decisions which are aimed at achieving a safety margin (between price and average cost), in order to allow for unexpected occurrences. (See Curwen, 1976, pp.137-138).

As the firm develops in its infancy and survival goals become less important attention may then turn to growth objectives, thus, once a minimum level of turnover is achieved that is regarded as 'secure', then the firm may be tempted to go for growth. (See also Wildsmith, 1973, p.84).

The Growth of New Firms

The growth of infant firms is not well represented by the literature on the growth of the firm. Most of the literature deals with the growth of large firms which are characterised by the divorce of ownership from control and the existence of multi-product, multi-plant operations. In such cases traditional economic theory is unable to describe the limits to the size of the firm, but limits may exist to the rate of growth of firms. What then are the limits to growth of infant firms who generally do not have limited liability and who are not in a position to replicate plants, or undertake mergers and takeovers and ownership is almost always synonymous with control? Before examining the limits to infant firm development it is necessary to see how the 'representative' infant firm actually grows.

The average size of firms at start-up was slightly over 2 full-time workers, (the founder and one employee). Median turnover was £47,400 resulting in sales per labour employed of £22,900. At the time of interview[1] the average firm had increased its employment to just over 5 people (an increase of some 254%), but with turnover increasing more rapidly resulting in sales per labour unit employed of £34,712[2] probably due to increased specialisation and learning process.

A cross sectional analysis of firm size by age is provided in Figure 9.1 where the simple average was taken of firm size for those which were still in existence at each time period. Although the overall trend is towards significant growth, 10 of the 57 firms experienced no change in the

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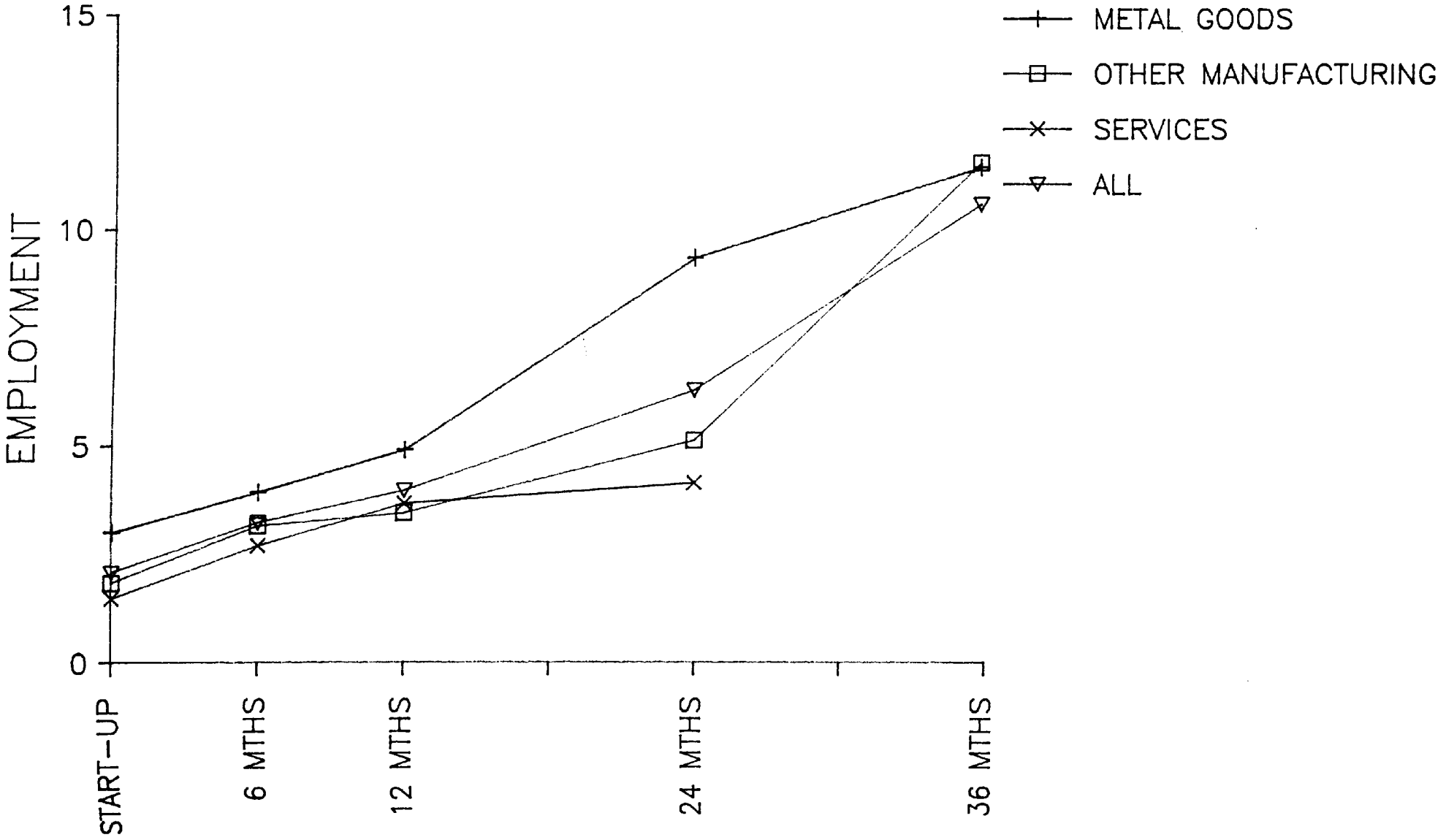
1 Average age of the firms was 18 months - 2 years.

2 Not indexed for inflation.

FIG. 8.1 GROWTH OF INFANT FIRMS

AVERAGE EMPLOYMENT GROWTH BY SECTOR



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size of their business measured by employment but only 2 actually reduced their size (both due to a break-up of partnership).

At the end of the third trading year the average size of these surviving firms was slightly over 10 employees - a 5-fold increase since birth[1]. Firms setting up in the metal goods manufacturing sector tend to be slightly larger, on average and increase more rapidly in the second year than either the other manufacturing or services sector[2]. (The latter starting up smaller and growing less rapidly). Other developments associated with this growth in the infancy period will now be discussed.

Educational Qualifications of Founders and Growth Rates of their Businesses

Storey (1982) examined the relationship between education of entrepreneurs and the development of their businesses. He hypothesised that founders with formal educational qualifications would run firms that would grow faster, have a higher profitability and be less likely to fail.

However, he found no association between educational qualifications and the employment size of the firm and only in the manufacturing sector was there a possible relationship between education and profitability.

Finally, Storey was unable to show any relationship between turnover and qualifications. He concludes that the successful running of a business requires personal skills which are not necessarily associated with intellect. In contrast Gudgin (et al 1979) had found that those firms run by people with degrees or equivalent qualifications had begun with larger amounts of capital and had achieved the largest average size.

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1 It is important to note that this sample average is swelled by three firms who had more than 20 full-time workers.

2 There was only one service firm in the sample which was three years old and so averaging is not possible.

Storey accounts for the lack of any relationship in his study as being due to the sampling process, since unsuccessful new firms were obviously not in his sample. Probably more significant is the fact that he was unable to distinguish between true rates of growth, measured by turnover, profitability or employment. Each firm in his sample was less than 8 years old, but the above variables used were measured at one point in time and so he was comparing firms of less than 1 year old with those over 5 years old.

In order to examine the relationship between educational qualifications and new firm development, we will disaggregate growth rates to a common variable in order to partially overcome the problems encountered by Storey.

Storey argues that the distinction between those entrepreneurs with, and those without qualifications, is too crude and suggests that this is also a possible explanation of the lack of association (between education and performance) found in his research. This association may only be between founders with the highest academic qualifications and development of their firms. Thus, for this study, educational qualifications will be classified into three groups: (a) degree and professional qualifications; (b) other qualifications and; (c) no qualifications.

As Gudgin (et al) had found for the North East, those founders in this study with degrees had considerably higher average start-up capital. The seven firms founded by graduates had an initial capital of over £32,000, while the average start-up capital for founders with other qualifications was £4,675 and £4,418 for non-qualified entrepreneurs. While graduates may have greater accessibility to financial sources (Gudgin et al p.13) this may be reflected in the size of initial capital required. There is clearly less of a distinction between Welsh entrepreneurs with other qualifications (trade certificates, HNC's, etc.) and those with no qualifications at all.

Previous studies (Gudgin, Brunskill and Fothergill 1979 and Storey 1982), suggest that performance in early years is strongly related to educational achievement, but failed to give anything other than a broad estimate of the

Table 8.1 GROWTH INDEX FOR NEW FIRMS BY EDUCATIONAL QUALIFICATIONS OF FOUNDER:

ANALYSIS BY EMPLOYMENT

Figures in parenthesis are average employment in each group

Qualifications of Founder	EMPLOYMENT				Average Annual % Growth Employment (net of adjustment)*
	No. of Cases	Total Initial Employment	Total Current Employment	Gross % Growth Employment	
Degree	7	9 (1.3)	45 (6.4)	500	326
Other Qualifications	19	56 (2.3)	139 (5.8)	248	175
No Qualifications	24	34 (1.8)	84 (4.4)	247	228

Source: Survey (South Wales, 1985)

* The total age in months of each group is calculated and averaged in years and then used to weigh the gross % growth to get net annual growth (see text).

development of the firm. This was because of the failure to take into account the initial employment and turnover of new businesses and their overall age. In other words, by concentrating on a single 'snapshot' year the growth of firms was not adequately measured. To overcome this difficulty we use a method of netting out growth rates according to the age (in months) of the business to provide an index for the average rate of growth per year. This is shown in Table 8.1.

Although only a small sample, firms founded by graduates tend to significantly out-perform their less qualified counterparts, while graduate founders initially start with an average of 1.3 people working in the firm, by the time of interview an average of over 6 people were employed. By adjusting for the age of the firm this represents a simple average growth rate of 326% per annum (within the first 5 years of life). Both other groups also show considerable net rates of growth with employment more than doubling in any year.

For founders with other qualifications the actual net rates of growth in employment were in fact lower than their non-qualified counterparts, although the average size of businesses owned by non-qualified founders is smaller.

The same analysis can be made for growth rates as measured by turnover in the new firms and a similar picture emerges (Table 8.2). Again the highest average rates of growth occur in those firms founded by graduates (note: the much reduced sample size due to: (a) firms not being old enough to record annual turnover figures; and (b) refusal to answer). However, those firms founded by other qualified people have similar high rates of growth of turnover and considerably more than those founded by non-qualified entrepreneurs. Having said that even these firms on average were experiencing a doubling of their annual turnover.

It is important to put these results into the context of the sample, e.g. Storey had shown that the new firm founders with a professional qualification were concentrated in the professional/business services sector. If, therefore, this sector is experiencing relatively more growth than other sectors, then founders with degrees will

Table 8.2 GROWTH INDEX FOR NEW FIRMS BY EDUCATIONAL QUALIFICATIONS OF FOUNDER:

ANALYSIS BY TURNOVER

	TURNOVER				
Qualifications of Founder	No. of Cases	Total (Initial) Turnover (annual)	Total (Current) Turnover (annual)	Gross % Growth Turnover	Average Annual Growth in Turnover (net of age adjustment)*
Degree	3	190,000	860,000	452	163
Other Qualifications	9	875,000	3,363,000	384	158
No Qualifications	11	302,000	998,500	331	103

Source: Survey (South Wales, 1985)

* The total age in months of each group is calculated and averaged in years and then used to weigh the gross % to get net annual growth (see text).

be seen to have faster rates of growth simply because they are concentrated in a fast growing sector. In contrast to Storey, however, of the seven graduate founders interviewed, only two were in business services and there are not any significant concentrations of any educational groups in particular industrial sectors, although all firms in the business services sector were established by entrepreneurs with some qualification or other.

The results of a sample of this size will always remain tentative (especially since holding variables such as industry constant substantially reduces degrees of freedom). However, although the relationship between educational and early performance is unclear when broad classifications (qualifications or no qualifications) are considered, those firms founded by graduates do seem to show higher rates of growth, particularly in terms of employment. Furthermore, a higher proportion of new firm founders have a degree (14%) than other studies have shown and Wales as a region has the highest proportion of school leavers going onto degree courses of any other region in the U.K.

Legal Status

At start-up only 11 of the 57 firms surveyed had limited liability status. Over half were in fact 'sole traders'. By the time of interview, however, the vast majority had not changed the legal status of their business, only one of the sole traders had registered as a limited company and 6 of the 17 original partnerships had now gone limited. The only other developments to take place were the break up of three partnerships. In each case one partner continued in business as a sole trader. Although slightly over a third of businesses were now limited companies (compared to the 20% of start-up), it is clear that the infant stage of the firm's life cycle is characterised by firms which do not have limited liability and in particular by sole trader ownership.

Finance

At the time of interview only 4 firms did not have any loan or overdraft facility with a bank (and these were less than a year old). The main difference between methods of financing the start-up and financing the development of the business was obviously the existence of retained earnings, but apart from that there seems to be a significant increase in the use of bank overdraft. (77% of firms compared to 47% at start-up). Four of the thirteen founders who allowed banks to take a charge on their house at start-up had reduced this liability by the interview, presumably generating enough on-going cash flow to be able to do this.

Finally, the use of grant aided finance was of minor importance (in terms of numbers of firms mentioning it), in the developing infant business - even less than at start-up where at least some founders were able to obtain the Enterprise Allowance Scheme.

Overall the perceptions of founders of their relationships with their bank, which were already highly satisfactory, tend if anything to improve with over 80% claiming that they were either excellent or good - only 3 of the 57 firms thought they were poor.

Marketing Mix

The types of competitive advantage that founders claimed to have over their competitors are detailed in Chapter 7 (Table 7.10), where price and quality were the main sources of differentiation. How then did they market the advantages of their product and how has it changed since start-up?

Distribution was not seen as any particular importance to most firms[1] and there was almost no change at all in the method of distribution used at start-up compared to those

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1 In contrast to the importance put on distribution by small firms in a Scottish survey undertaken by Kinsey (1983), this may be explained by the more mature nature of the firms sampled by Kinsey - who were, therefore, further along the firms life cycle as a whole.

Table 8.3 Person Responsible for Selling Product

Person	Start-Up	Now
Founder	54	48
Manager	2	3
Agent	0	11
Franchise	2	0
All	58	62

Source: Survey

Table 8.4 Methods of Advertising used in New Businesses

Type	No. Mentions Start-Up	New
Trade journals	7	14
Leaflets	6	15
Press	17	26
Yellow Pages	9	24
Mail Shots	4	16
Radio medium	1	2
All	44	97
Firms not advertising	32 (56.1%)	17 (29.8%)

used at the time of interview. The firms own road transport dominated (90%), but with some use of hired vehicles and carriers.

Table 8.3 shows that the founder himself was also the salesman for his firm's product at start-up in almost 95% of the cases, only 2 firms specifically had a sales manager as such and a further 2 had help from their franchise network in obtaining orders. The development of infant firms seems to be associated with the introduction of external agents as salesmen, although these were concentrated in the final goods sector and the original founders continue to be the main salesmen during the infant stage of development.

Compared to the 41% of firms specifically undertaking market research at the time of start-up, the initial stages of business development are not associated with particular marketing plans or further market research (less than 16% of firms did so). This has also been pointed out by Barnes (et al, 1982) who argues that the lack of time and money prevent more widespread uses of market research for their businesses.

Table 8.4 shows the methods of advertising used by new firms, but the most striking feature is that over 56% of the entire sample did not advertise during, or immediately before starting up. The development of infant businesses, however, shows a considerable increase in both the extent and level of advertising used.

The use of mail shots which Willis (1986) argues to be one of the most effective marketing tools for small businesses, increases substantially after start-up, but relatively passive methods such as Yellow Page advertisements still dominate. The most popular form of advertising, both at start-up and since, is usually the local press.

It is clear that the approach to marketing adopted by new firms is unsophisticated to say the least and only shows a slight improvement in the infant stage despite the rapid employment growth experienced over this period in the 'average' firm.

Formal Control

The practices of book-keeping and financial control are significantly less sophisticated than even those documented by Arnold McCulloch (1983) in his survey of accounting practices in recent Scottish start-ups. In the present survey 50 of the 57 firms interviewed had their routine book-keeping done by the founder or spouse, the remainder by an employee or friend. In addition to this, however, the limited companies and all the partnerships also had their books checked by an accountant from outside the firm, this was not the case for almost 60% of the sole trader businesses.

More significantly though, 82.1% of all firms sampled admitted that book-keeping and accountancy information was only used for company tax and VAT purposes. Only 10 (17.9%) of founders claimed to use such information in running the business. This is significant in that it implies that there is very little management control information available, let alone used by founders, with the time, effort and expenditure on accounting control being dictated to by legal requirements and little else. Indeed, during the interviews, new firm founders seemed generally unconcerned about the fact that financial information was not used in running the business. It suggests that most had no idea of the potential benefits of management control information, let alone how to use it - and yet the costs of providing this, particularly in terms of time and effort on the part of the founder himself are readily identifiable.

The contrast between new Welsh firms and small firms in the International Small Business Survey (ISBS, 1984) is marked[1]. The firms in the ISBS survey were not necessarily young and a number were, in fact, large firms.

Of these, however, 85% claimed to use accounting information in running the business as well as for tax purposes. This is almost a complete reversal of the picture described above where over 80% of the new firms in

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1 For an international comparison the following question was taken from the ISBS survey: "Do you use accounting information only for tax purposes or do you use it in running your business?"

this survey actually used accounting information for tax purposes only. The very early stage of life of a new business does not then seem to be associated with the sophistication or even awareness of management control techniques and information and is something that is clearly seen to be important in larger and older firms. The question to arise, is of course: Are these firms bigger and older (survivors) because they recognised the need for good and updated control information on the state of the business? Or does this come as a natural progression as the infant firm expands and/or ages?

It could be reasonably argued that those firms using financial control would be able to identify more quickly potential problems and be able to take corrective action, than those that do not. Thus, the survival rate of new businesses is likely to be higher in those that adopt some more formal management control system since all firms interviewed were still in existence it was not possible to test this, however, we can relate this to firm growth and profitability.

Firms claiming to use book-keeping information in the running of their business (as opposed to tax only reasons), tend to start up at a slightly larger scale in terms of both capital and labour employed[1]. Furthermore, at the time of interview these firms had grown substantially more than for the sample as a whole, although these firms were generally older, this only partially accounts for the current average size of 11.3 employees. (A factor of 2 above sample average).

Surprisingly, however, reported firm profitability and sales per employee were lower in this group than majority tax only group. It is not possible to determine causality, however, since it is possible, although unlikely, that these firms have adopted management controls as a response to relatively low profitability[2].

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1 Average employment, start-up size was 3 compared to 2 for the sample as a whole.

2 More likely however, is the fact that many founders found it difficult to express profitability, however, defined as a % on sales.

Investment in infant business (relative to start-up), is not accompanied by any increase in the extent or sophistication of accountancy functions or financial control in general, this may be because banks regard overdraft facilities as largely self monitoring. Nevertheless, it is noticable and worrying that the significant growth of infant firms is not accompanied by any increase in formal management/financial control. Indeed to the extent that most of the founders who were 'forced' to produce a formal business plan at start-up did not continue to adopt financial plans or even use their original cash flow again, then the development from birth to infancy is associated, if anything, with a reduction in the extent of formal management control.

Limits to Infant Growth

The limits to growth of large firms in general have important implications for the development and growth of small firms. This is so for more indirect reasons than there being similar constraints on growth in small and large firms. In particular, Penrose (1959, pp.215-225), argues that since the rate of growth of individual large firms is limited, then an expansion in the economy may create opportunities for firm expansion, but at a faster rate than large firms can take advantage of them. This then leads to what Penrose terms Interstices in the economy, within which existing small firms may take advantage and grow, or if existing small firms are themselves limited in their ability to grow and fill all of the intersticies then there will be scope for the creation of new firms. In other words the various financial risks and managerial constraints of existing firms will at least in part effect the limits to the growth of demand for small and new firms.

Indeed the size of the market is the major constraint on the growth of infant firms who are quite clearly unable to undertake extensive diversification or grow by acquisition. (42.6% of mentions of factors stunting the growth of the firms surveyed were strongly market-related). In contrast only 10.1% of mentions were related to management resource - particularly the founder's own time and effort, although this did seem to be the most significant problem faced by firms mentioning this. The problem of finding finance to fund the growing business

Table 8.5 Capacity Utilisation by Industry Type

Number of Cases

Type	Capacity Utilised				
	40% & Less	41-70	71-99	100%	Simple Average
Mechanical Engineering	3	2	3	1	59%
Other metal goods	-	4	2	1	73%
Textiles & other manufacturing	1	1	2	4	83%
Printing/Paper	2	-	1	1	60%
Wood/Furniture/Articles	-	5	2	-	63%
Other Services	3	1	1	1	50%
Business Services	1	1	-	2	70%
All	10	14	11	10	66%
Manufacturing	6	12	10	7	68%
Service Sector	4	2	1	3	58%

Source: Survey (South Wales, 1985)

was second only in importance to market factors, but Penrose (1959, pp.37-38) argues that this a function of fund raising ingenuity of entrepreneurs and indeed the same could be said of market making expertise. In such instances the managerial or entrepreneurial constraint on growth, although not explictly reported, may be the most important limit to growth on infant firms as Penrose asserts it is for large multi-plant corporations.

To further discuss the growth of new firms, Table 8.5 shows the level of capacity[1] used at the time of interview. Overall, firms were running at only 66% of capacity (a simple unweighted average), but there were significant variations around this figure.

Ten of the 45 firms responding were operating at less than 40% capacity, yet ten were operating at full capacity. Substantial differences in capacity utilisation also exist between broad industry groups with half of the firms in textiles and 'other' manufacturing operating at 100% capacity, but only one of the 9 mechanical engineering businesses achieving this level. What then are the main constraints on growth since in most cases there is plenty of spare capacity in physical assets.

The factors that limit this level of capacity are analysed according to the number of mentions they received by founders and are cross referenced by the capacity utilisation groupings. (See Table 8.6). The main limitations to increased output for those firms operating at high capacity is labour and in particular labour with the right skills and quality of work and which founders feel they can trust. Despite the very high levels of unemployment in their local areas, it seems paradoxical that finding labour should be a major concern and problem for growing infant businesses. Indeed a number of instances of employee poaching were reported and this confirms the findings of O'Farrel (et al, 1986), that

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1 Founders were asked to express as a % of total potential output their current production of goods or services - defined to be with existing resources and working standard working hours. Data was obtained in 45 cases.

finding labour is a significant problem for small and medium sized companies in the regions of the U.K. Furthermore, the labour problem is compounded by the fact that the founders themselves are largely responsible for 'bedding in' and possibly training new employees. This further exasperates the managerial constraint of Penrose.

Significantly, the immediate market size is the single most important constraint overall, but this is heavily concentrated into the group currently utilising less than 40% capacity, with every single firm in this group being constrained by the largely external market forces. Since the growth of these firms is primarily limited by the market and to some extent the motivation of the founders to grow, they have not been able to get to the stage where labour becomes a problem as it is where market size is of considerably less importance and capacity utilisation correspondingly higher. Finance is a constraint to some extent on all firms, but is usually of secondary importance.

A further understanding of the perceived limits to production of infant firms can be obtained from Table 8.7. Clearly the problem of recruiting suitable labour is almost entirely a manufacturing industry phenomenon and in particular in the mechanical engineering sector.

Market size tends to be more of an important limiting factor on the growth of service firms than those in manufacturing, probably because of the limited geographical area that they cover. The limits to market size may suggest that new firms enter the market with products which allow them to trade in pockets of product characteristics space and their growth is constrained by overall market growth in scope and the actions of existing firms. The limits to market size in particular intersticies of characteristic space probably account for the surprising fact that as many as two-thirds of all the firms interviewed were already looking to diversify their business even at this very early stage of the business life cycle (less than 1 in 10 of these however, were thinking of moving into a completely new line of business).

The constraint of space is only a major problem in manufacturing firms and although this was mentioned by 8

Table 8.6

Perceived Limits to Production:

Analysis by Capacity Utilisation

Number of Mentions

Limitation \ Current Capacity	40% & Less	41-70%	71-99%	100%	All
Market	10	5	5	1	21
Labour	-	6	7	5	18
Finance	3	6	2	4	15
Motivation (self)	3	2	1	1	7
Space (site)	1	1	3	3	8
Other	-	1	1	1	3
All	17	21	19	15	72

Source: Survey (South Wales, 1985)

Table 8.7 Perceived Limits to Production by Industry of Entry

Number of Mentions

	Limits to Growth					
	Market	Labour	Finance	Motivation	Space	Other
Mechanical Engineering	4	6	1	-	1	-
Other metal goods	1	3	1	2	2	-
Textiles & other manufacturing	3	4	4	1	4	1
Printing/Paper	1	1	1	2	1	1
Wood/Furniture/Articles	5	3	2	1	-	1
Other Services	7	2	5	3	-	-
Business Services	5	-	3	2	-	1
All	26	19	17	11	8	4
Manufacturing	14	17	9	6	8	3
Service Sector	12	2	8	5	-	1

Source: Survey (South Wales, 1985)

firms as being a significant limit to further growth, almost half (47.5%) of the firms thought that they would be moving premises in the near future and while this may cause significant problems in the availability of industrial premises in S. Wales, it suggests that most of the moves will be in response to differences in costs or image of premises rather than space constraints.

Further Development

Despite the perceived limits to growth outlined, only one of the 57 firms surveyed did not expect their sales to increase in the next year, with expectations of future sales, particularly buoyant in the other manufacturing sector. Overall most firms were highly optimistic about future development with 54% of respondents expecting turnover to 'increase considerably'.

Also shown in Table 8.8 is the expected charge in employment in the firms interviewed over the next 2 years. All sectors show a significant expected increase in labour employed. If this is realised then these average infant businesses will, over the next 2 years, increase by some 74% over current employment. The actual growth recorded in Figure 8.1 is likely to continue if plans are realised, but with a significant increase in the rate of employment growth of young service firms (who tended to be less inhibited by the lack of skilled labour), although this may be due to some extent to the service firms catching up so to speak the other firms since they tended to be slightly younger overall at the time of interview. The metal manufacturing sector who had experienced the most difficulty in finding available, trustworthy and skilled employees, expect employment to grow at a lower rate on average than other sectors, but an increase of 53% or 5 to 6 jobs in the representative firm over the next 2 years is by any standards significant growth.

Five firms specificaliy said that they wanted to remain at the same size in terms of employment, but to increase profitability, possibly reaching a target size. The majority of remaining firms were looking to expand and given the constraints of current production by existing markets, firms were attempting to provide better services, or increased product ranges. If this can be called

Table 8.8 Expected Development of Young Firms Perceptions of their Founders

Number of cases

Expectations Next Year's Sales	Metal Manufacture	Other Manufacture	Services	All
Sales: Fall	-	-	-	-
Same	-	-	1	1
Increase	7	6	8	21
Increase Considerably	6	14	6	26
	13	20	15	48
Expected Change in Employment in next 2 years				
Same	1	2	6	9
1-4	10	14	9	33
5-9	3	6	1	10
10+	2	1	2	5
Expected Average % Increase on current employment over 2 years	53%	73%	127%	74%
Now	120	131	49	300
Expected	64	96	62	222

Table 8.9 Expected Change in Employment and Limits to Current Production

Number of Mentions

(Figures in parenthesis are percentages)

Change Employment over next 2 years / Limits to Production	Same	1-4	5-9	10+
Market	7 (53.8)	11 (22.4)	5 (33.3)	2 (50)
Labour	1 (7.7)	12 (24.5)	6 (40)	-
Finance	1 (77)	11 (22.4)	1 (6.7)	1 (20
Self Motivation	2 (15.4)	8 (16.3)	-	-
Space	1 (7.7)	4 (8.2)	2 (13.3)	1 (20)
Other	1 (7.7)	3 (6.1)	- (6.7)	-
All	13	49	15	4
No. of Firms Responding	9	33	10	5

Source: Survey (South Wales, 1985)

diversification then it is so in its narrowest sese with most firms looking for new custom, but this was usually within different subsections of existing market types.

If future expectations of employment growth are linked to the limits to current production in the infant business, then no simple relationship is apparent (Table 8.9), although firms not expecting to increase employment in the next 2 years are dominated by the available size of market. While for those businesses expecting to increase employment, but by less than 5 people, market size is far less important and problems of labour availability and finance are considerably more important.

Profitability

Two aspects of profitability were obtained during the interviews. The first was a subjective assessment of the profitability of their business made by firm founders, the second was a quantitative response based on a percentage of turnover. In the first case founders were asked to classify their perceptions of business profitability by the classification shown in . Clearly, founders tended to dislike words like - 'very profitable' or 'considerably profitable' and responded in terms of moderately or slightly profitable. The four firms who were not profitable were all less than 1 year old (as were most of those reporting break-even figures) and so rather than suggesting imminent business failures are simply too young to have reached the break-even point on their cash flows as a result of absorbing initial fixed costs of set-up.

For the sample as a whole, average profitability of firms in the infant stages of their life cyle was almost 22% of total sales[1]. For founders claiming to have a very profitable business, the figure was 36.6%, moderately profitable 23.5% and slightly profitable 8.1%. Thus, while individual entrepreneurs perceptions of what % profitability corresponds to subjective descriptions, it

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1 Not all firms were able, or willing to disclose figures on profits or turnover. This figure represents only those firms that provided both and the possibility of bias must be recognised.

Table 8.10 Profitability Perceptions

Perception of Profitability	No. of Firms %	Simple Average Profitability %	Profitability Weighted by Turnover (%)
Very	5 (8.9)	49.2	36.6
Considerably	1 (1.8)	-	-
Moderately	24 (42.9)	24.3	23.5
Slightly	13 (23.2)	9.6	8.1
Break Even	9)) (23.2)	-	-
Not Profitable	4)	-	-
All	56	24.4	21.9

Source: Survey (South Wales 1985)

was felt by the interviewer that a number of founders had little idea of what exactly profits mean, usually confusing them with their own wages and having problems distinguishing between pre and post tax profits. For these reasons the confidence placed on the profitability figures is greatly reduced and the subjective assessment of profitability is probably the best guide[1]. In fact, this classification of entrepreneurial opinion on its own profitability was used by the International Small Business Survey (1984, ISBC) and the results can be compared with the present survey.

Those entrepreneurs reporting moderately profitable businesses were the largest group in both surveys. (47.1% for the 11 separate countries surveyed by ISBC and 42.9% for Wales). Next in order of importance, again in both surveys, was the 'slightly' profitable group. However, it is important to note the differences in the sample of the surveys. The ISBC study was of small firms and it is this that probably accounts for the remaining difference. Only 4.1% of the firms in the international survey reported being not profitable and yet, 23.2% of the Welsh firms were either at break-even or making losses. Again, this seems to be the result of the very young firm surveyed here having yet to reach break-even. On the other hand, it suggests that new firms reach the 'normal' rate of profit (of small firms in general), as early as the second year of business life.

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1 This is so for two reasons: Firstly, founders were more willing to answer the subjective question that specify rates of profits and secondly, from the point of view of the theory of the entrepreneur it is the perceptions of the founder that are important and may take into account non-monetory factors in answering the question.

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CHAPTER 9

NEW FIRMS, JOB CREATION AND THE ROLE AND PERFORMANCE OF SUPPORT AGENCIES

Having analysed the start-up process itself and the infant development of new firms at the micro level, it is now possible to make some estimates of job creation in new firms at the aggregate level. Such estimates have been the major focus of attention of a number of studies, which in particular, have aimed at identifying the contribution of new and small firms to job generation in local, regional and national economies.

No such estimates currently exist for the Welsh economy or even at more local levels within the Principality. Despite this the number of support agencies for new and small firms has mushroomed in the last years, primarily in response to the potential employment opportunities offered by this source.

Without some indication of the magnitude of job creation potential, even measured without regard to secondary effects, it is difficult to justify the existence of some of these support agencies and schemes on a national or regional basis.

The aims of this chapter are twofold; firstly to provide estimates of job creation in new independent firms in Wales during the 1980's and to compare these with overall employment, unemployment and redundancy figures for Wales in order to assess the relative magnitude of gain. It is estimated that new manufacturing firms starting up in 1983 in Wales have created 3,800 new jobs within three years of birth and in manufacturing and certain service sector trades together, over 10,000 jobs have been created within two years of birth, i.e. by 1985. Secondly, the role and performance of support agencies and schemes available to new Welsh firms will be discussed in an attempt to assess if they make any difference to the start-up process itself and, therefore, the ease of start-up and possible future job creation.

Job Creation in New Firms

Inevitably the main focus of attention on new and small firms is related to their job creation ability when compared to other sectors of the economy.

Despite much research effort there is still considerable disagreement on the role of small firms in job generation let alone that of new firms in particular.

Storey[1] (1980) undertaking a review of studies on the role of new manufacturing establishments in the U.K. estimated that not more than 15% of gross new manufacturing jobs per decade are created by wholly new establishments and is likely to be lower still in the assisted areas. In terms of net job creation, however, new firms can be seen to be major creators of jobs mainly as a result of the general decline in employment of larger firms in the economy.

It is worth noting, however, that almost all of the U.K. evidence is based solely on the manufacturing sector of the economy and little is known about the importance of service sector births in the dynamics of job generation. Even manufacturing sector studies have tended to concentrate on the long term impact on employment, usually of between 10 and 20 years. (See for example, Fothergill and Gudgin 1979, Firn and Swales 1977). While this allows the long run impact to be assessed it is not possible to identify trends over shorter periods and in particular is unable to provide a role for the transitory nature of many of the jobs created during the period studied, but which did not exist by the end of the period. (The contribution to employment in new firms which have closed down even after a number of years trading is not taken into account).

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1 Storey D.J. (March 1980), Job Generation and Small Firms Policy in Britain. Policy series 11 (pp.6-7).

Since this research is only concerned with the start-up and very early stages of firm life an attempt will be made to estimate the job creation potential of new firms only in the short term (within the first three years), but more importantly, estimates for periods within this will be made. The absence of a comprehensive industrial establishment database on the Welsh economy prevents a direct method of estimating new firm job generation.

However, another approach is available and although a number of assumptions have to be made it does seem to be the most reliable, if not the only way to approach job generation in new firms in the Welsh economy.

From the survey we can estimate the average size of start-up of new independent firms in manufacturing and business services sector, furthermore the average rate of growth of each sector within 6 months, 12 months, 24 months and 36 months of start-up were also obtained. These provide us with the basis on which to calculate employment in new firms in Wales.

Appendix E provides a detailed account of the method used for estimating the dynamics of employment change in the infant period of newly formed firms. Basically, business start-up figures are obtained on a county basis within Wales from VAT registrations (published by the Department of Trade and Industry) and from the same source, but for a different period, it is possible to calculate approximate rates of failure of new firms according to their age. (See Appendix E).

In the manufacturing sector it is estimated that 1 in 20 new firms will fail within their first 6 months of trading and almost 1 in 8 will have closed down within the first year. Within the 3 years following start-up 35.7% of firms will have ceased to trade. These figures are used to calculate the numbers of surviving firms in any time period after start-up and the loss of jobs due to failures is estimated according to the average size of firms at the time of failure.

Estimating the numbers of jobs created directly in new firms over any time period causes problems of the identification of the source of the jobs from new firms of different vintages. In order to make the results more

clearly identifiable it is useful to isolate the changes that occur as a direct result of new firms setting up in any one year only. Jobs created during that period by other new firms starting up in earlier years are ignored as are jobs created in new firms setting up in future overlapping periods.

This base year is taken as 1983 for the estimates for Wales. This is convenient since it is overlapped by the period covered by our survey and by published VAT statistics. During 1983 some 513 manufacturing firms registered for VAT purposes for the first time and some 2,500 registrations were recorded in the selected service trades[1].

These figures represent the annual average start-ups over the period 1980-83 and should, therefore, be regarded as representative estimates of jobs created by new Welsh firms starting up in any one year in the early 1980's.

The final estimates for jobs created by new firms in Wales are given in Table 9.1[2]. Some explanation is required. Assume for simplicity that all the firms starting up in the base year do so on the first day of 1983. Immediately there is an increase in employment in the region of almost 5,000 jobs in new firms setting up in the selected services and manufacturing industries. (See bottom left hand cell of Table 9.1). These are made up of 1180 manufacturing jobs created by the 513 new manufacturing establishments and 3,744 service jobs created in 2,547 new service sector firms. (Note these figures represent full-time or equivalent jobs). (The first column provides corresponding data on a county basis, in Gwent for example, almost 100 manufacturing firms were set-up which immediately provided 225 manufacturing jobs to that county).

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1 To ensure compatibility with the sampled service firms, selected services include: professional and business services, transport and communication, catering and other services, but excluding retail distribution.

2 The assumptions (as listed in Appendix E) on which this Table are based should be borne in mind when reading these estimates.

Table 9.1

Estimated Job Creation in New Firms in Wales

(Figures in parenthesis are numbers of firms, other figures represent employment)

Area		Start-Up		6 months		6 months - 12 months		2nd Year		3rd Year	
Clwyd	Manfg.	(69)	159	(66)	229	(61)	258	52)	337	(44)	509
	Services	(362)	532	(346)	931	(322)	1182	(272)	1126	(227)	N/A
	Total	(431)	691	(412)	1160	(383)	1440	(324)	1503	(271)	N/A
Dyfed	Manfg.	(58)	133	(55)	191	(51)	216	(44)	319	(37)	428
	Services	(371)	545	(355)	955	(331)	1295	(280)	1159	(234)	N/A
	Total	(429)	678	(410)	1146	(382)	1431	(324)	1478	(271)	N/A
Gwent	Manfg.	(98)	225	(93)	323	(86)	364	(73)	529	(62)	717
	Services	(375	551	(359)	966	(334)	1225	(283)	1172	(236)	N/A
	Total	(473)	776	(452)	1289	(420)	1589	(356)	1701	(298)	N/A
Gwynedd	Manfg.	(35)	81	(33)	114	(31)	131	(27)	196	(23)	266
	Services	(228)	335	(218)	586	(203)	745	(172)	712	(144)	N/A
	Total	(263)	416	(251)	700	(234)	876	(199)	908	(167)	N/A
Mid Glamorgan	Manfg.	(73)	168	(69)	239	(64)	271	(55)	399	(47)	544
	Services	(346)	508	(331)	890	(308)	1130	(261)	1080	(218)	N/A
	Total	(419)	676	(400)	1129	(372)	1401	(316)	1479	(265)	N/A
Powys	Manfg.	(31)	71	(29)	101	(27)	114	(23)	167	(20)	231
	Services	(133)	196	(127)	325	(118)	433	(100)	414	(83)	N/A
	Total	(164)	267	(156)	426	(145)	547	(123)	581	(103)	N/A
S. Glamorgan	Manfg.	(85)	196	(81)	281	(75)	317	(64)	464	(54)	625
	Services	(424)	623	(405)	1089	(377)	1384	(318)	1316	(265)	N/A
	Total	(509)	819	(486)	1370	(452)	1701	(382)	1780	(319)	N/A
W. Glamorgan	Manfg.	(63)	145	(60)	208	56)	237	(48)	348	(41)	474
	Services	(309)	454	(295)	794	(275)	1009	(233)	965	(194)	N/A
	Total	(372)	599	(355)	1002	(331)	1246	(281)	1313	(235)	N/A
Wales	Manfg.	(513)	1180	(488)	1693	454)	1920	(388)	2813	(330)	3818
	Services	(2547	3744	(2435)	6550	(2269)	8327	(1920)	7949	(1602)	N/A
	Total	(3060)	4924	(2923)	8243	(2723)	10247	(2308)	10762	(1932)	N/A

By the middle of 1983, i.e. 6 months after start-up, a number of the original firms will have failed, leaving only 488 surviving manufacturing firms of the original 513. However, the surviving firms have grown sufficiently even within the first 6 months to more than offset the gross job losses and net employment in the new manufacturing firms has increased to almost 1700 jobs by this time. Within the first year, however, it is the service sector which has proved the really significant job generators, so much so that by the end of 1983 new firms as a whole were employing around 10,000 new employees (including the founders themselves), which represents a doubling of the total at start-up itself.

The general trend in employment for Wales is shown graphically in Figure 9.1 Manufacturing firms, although providing a smaller number of jobs at this stage, show a continuous net increase in employment over the three years, while service sector employment actually declines slightly during the second year. Unfortunately, it is not possible to provide reliable estimates for the third year of life of new service firms because of the lack of service firms over 2 years old in the survey itself.

While Table 9.1 shows the general trends in new firm employment and the magnitudes of the gain for each of the Welsh counties, the underlying factors at work can be identified in Table 9.2 which show the dynamics of new firm employment change for Wales as a whole. The net change in employment in any period is the result of job losses due to failure, these include failed entrepreneurs and redundant workers and the jobs gained or vacancies opened as a result of the overall growth of surviving firms.

For new manufacturing firms it can be seen (Figure 9.2), that vacancies in each period more than offset failure losses, although the slower rate of growth of new manufacturing firms during the first year of life causes a dip in the number of vacancies available. The second year of life of manufacturing firms, however, shows a sharper rise in employment growth causing an increase of almost a thousand manufacturing jobs during that year alone.

The trends in new service firms (Figure 9.3) show a different picture, although failure rates are similar and show a continual increase in job losses due to closure (at least in the first two years). The slower rate of growth of surviving firms in the second year of life results in a slight net reduction in total employment during the second year. Despite this, however, it is clear that slightly over 4,000 service jobs are created in Wales between the time of start-up and the end of the first year of trading. This is mainly the result of the sheer number of new service firms being formed compared to those in manufacturing, although it is still surprising that so many jobs are being generated at such an early stage of business life.

Further analysis of Table 9.2 reveals the possibility of quite a significant number of people working in new firms moving between firms as some firms fail and survivors grow. Interestingly, a number of these 'job hoppers' could actually be failed entrepreneurs, since it can be seen that within the three years since starting up, around one and a half thousand entrepreneurs will have left the ranks of the active entrepreneur group. Some undoubtedly attempt to start-up again, others may try for jobs in the surviving enterprises who are certainly looking for the right kind of labour (see Chapter 8), although this may be a hard pill to swallow for those whose main motivation of becoming self-employed was independence.

With the problem that many new manufacturing firms had in finding suitable labour, it is probable that a very high proportion of those workers made redundant from failing firms will be quickly re-employed in the surviving firms, who even then will be looking for labour from other sources to fill the vacancies. During the third year, for example, 546 manufacturing workers will be made redundant (including previous founders) and yet, 1,426 manufacturing vacancies will be created within the same period.

While it may be predicted that people employed in these new firms will be more likely to start up their own business than their counterparts in large firms (incubator hypothesis), it is also true that this may not be the case for those who had been employed in an infant firm before it had failed. Many of these may have become disillusioned with entrepreneurship after experiencing

Table 9.2 Dynamics of New Firm Employment Changes in Wales - Some Estimates

		Start-Up	0-6 months	6-12 months	2nd. Year	3rd. Year
Manufacturing	Surviving Firms	513	488	454	388	330
	Firms Failing	-	25	34	66	58
	Vacancies	1180	571	345	1172	1426
	Failed Entrepreneurs	-	35	48	92	81
	Redundant Workers	-	37	83	287	465
	Vacancies - Jobs	+1180	+499	+214	+793	+880
	Total Employment	1180	1693	1920	2813	3818
Service	Surviving Firms	2547	2435	2269	1920	1602
	Failing Firms	-	112	116	349	318
	Vacancies	3744	2970	2223	902	N/A
	Failed Entrepreneurs	-	157	232	488	445
	Redundant Workers	-	76	296	873	N/A
	Vacancies - Jobs	+3744	+2737	+1695	-459	N/A
	Total Employment	3744	6550	8327	7949	N/A
Total	Surviving Firms	3060	2923	2723	2308	1932
	Failing Firms	-	137	200	415	376
	Vacancies	4924	3541	2568	2074	N/A
	Failed Entrepreneurs	-	192	280	580	526
	Redundant Workers	-	113	379	1160	N/A
	Vacancies - Jobs	+4924	+3236	+1909	+334	N/A
	Total Employment	4924	8243	10247	10762	N/A

Source: Survey (South Wales, 1985)

See text, Appendix E.

first hand firm failure. Working in the opposite direction, however, are the people who are employed in a surviving firm that is growing quite rapidly - such people may be even more likely to leave and set up after being encouraged by business success. This suggests that an approach adopted by Willmer and Hoggard (1983) may be useful - they treat entrepreneurship as a disease which can be disseminated as an epidemic process. As a result the attitudes of people to starting out on their own is not static, but is seen as part of a dynamic process, responding to the success or failure of firms they have contact with.

The relative magnitude of the jobs generated by the new firms can be seen when they are compared to the numbers of confirmed redundancies occurring in Wales. During 1984 and 1985 the average number of confirmed redundancies per year was roughly 13,000[1]. It can be seen that these were largely offset by the 10,700 new jobs created in firms which were started up in 1983 and which were 2 years old by 1985. It is possible, of course, that some of the confirmed redundancies were actually caused as a result of the new firms and while we are unable to assess the full significance of this it is important to note that the estimates for new firm employment are direct estimates and do not include the multiplier effects that would occur in other new or small firms in the region.

Disaggregating the redundancy figures to make them directly compatible with the survey estimates, it can be seen that the contribution of new firm employment to offsetting redundancies shows a strong sectorial bias. In the manufacturing sector, within 2 years of birth (in 1983), some 2,800 jobs had been generated in Wales, whereas there were around 5,500 confirmed redundancies in the manufacturing sector alone (excluding energy, water and extractive trades). Even on this simple basis where not all redundancies occurring are actually measured, 2,700 manufacturing jobs were not replaced by new firms.

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1 Manpower Services Commission, Manpower Intelligence Unit (Wales), Unpublished.

Figure 9.1

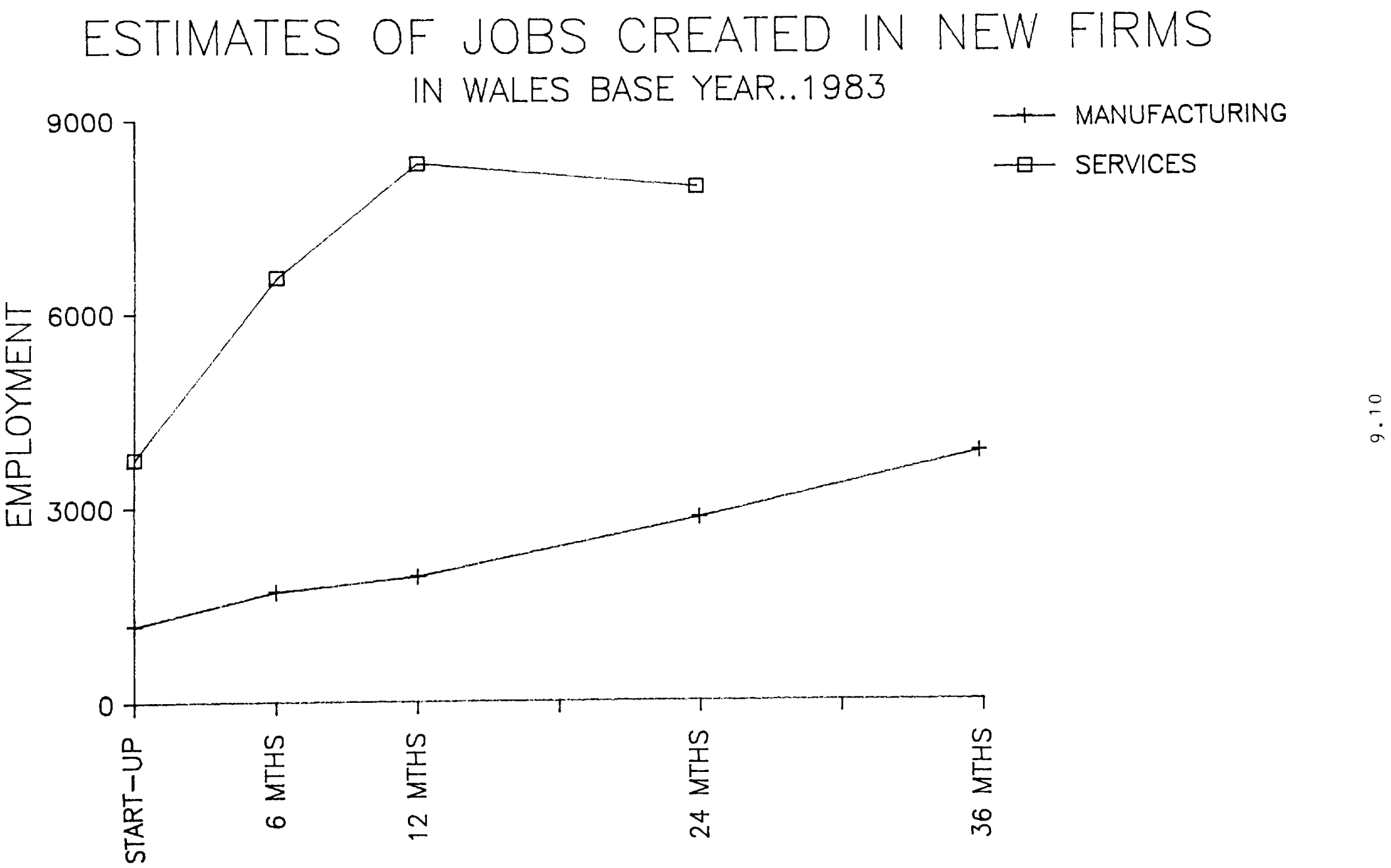

ESTIMATES OF JOBS CREATED IN NEW FIRMS
IN WALES BASE YEAR..1983
MANUFACTURING
SERVICES
EMPLOYMENT
9000
6000
3000
0
START-UP
6 MTHS
12 MTHS
24 MTHS
36 MTHS

Figure 9.2

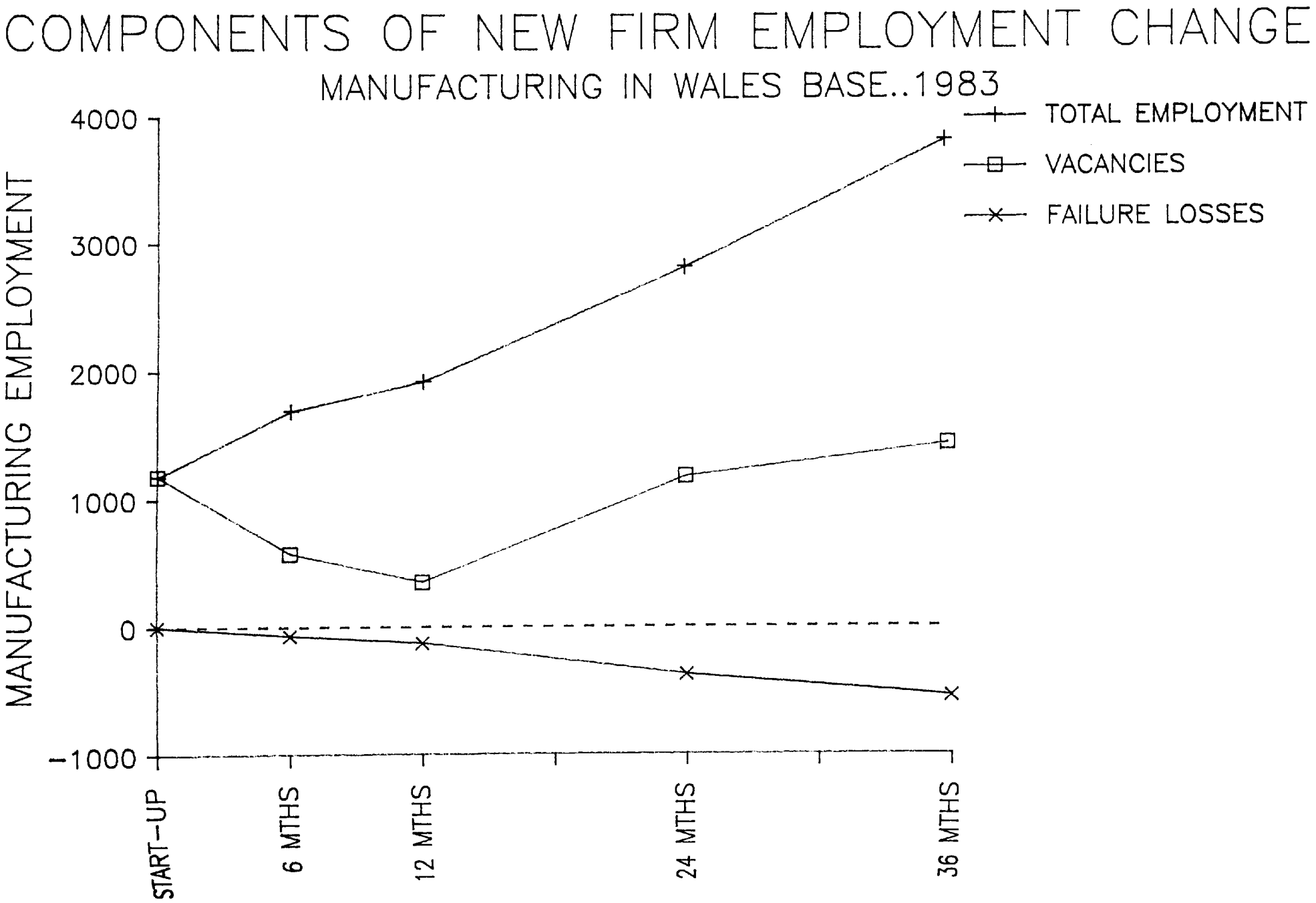
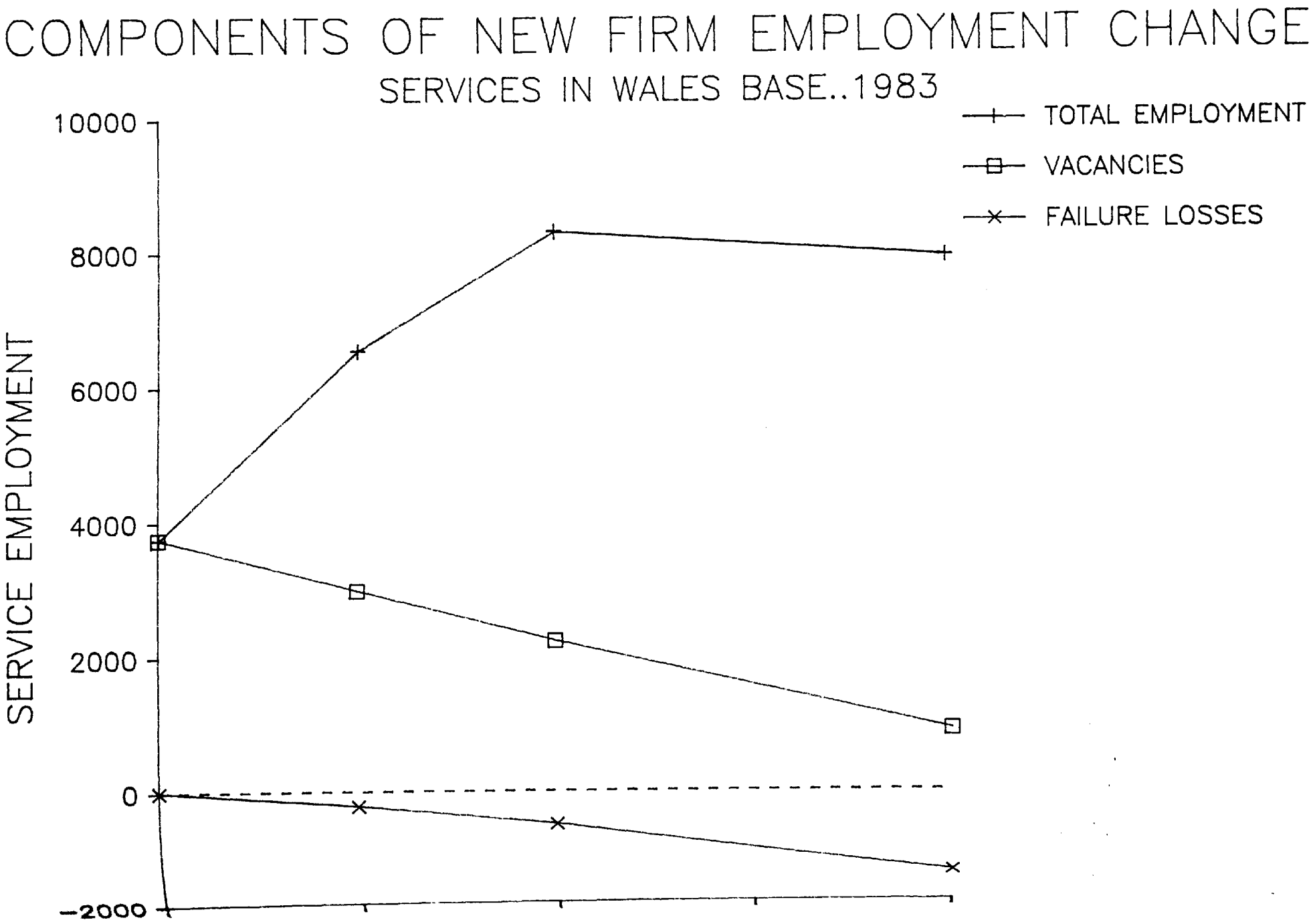

COMPONENTS OF NEW FIRM EMPLOYMENT CHANGE
MANUFACTURING IN WALES BASE..1983
TOTAL EMPLOYMENT
VACANCIES
FAILURE LOSSES
MANUFACTURING EMPLOYMENT
4000
3000
2000
1000
0
-1000
START-UP
6 MTHS
12 MTHS
24 MTHS
36 MTHS

Figure 9.3


COMPONENTS OF NEW FIRM EMPLOYMENT CHANGE
SERVICES IN WALES BASE..1983
TOTAL EMPLOYMENT
VACANCIES
FAILURE LOSSES
SERVICE EMPLOYMENT
10000
8000
6000
4000
2000
0
-2000

The contrast between this and the service sector is marked. There were, on average, only 2,100 reported redundancies in the service sector in Wales over the period 1984-85 and yet, new firms starting up in 1983 had within 2 years created almost 8,000 service jobs (and this excludes retail distribution), suggesting that much of the increase in the employment in the service sector (compared to manufacturing) is due to new openings, rather than expansions of well established service firms.

Another approach to provide some indication of the importance of the estimates of new firm employment is to compare them with the effects of traditional regional policy. Previously estimates of the employment effects of regional policy measures have been based on rather crude 'shift share' approaches. However, new changes introduced in November 1984 require claimants of regional grants to estimate the number of actual jobs to be created as part of a project. (These estimates are rigourously checked by the Department of Trade and Industry since they represent the basis for calculating the grant entitlement). As a result it is now possible to provide direct figures on grant aided jobs.

Between 30 November 1984 and 30 June 1986, 14,281 new jobs had been grant aided under the Regional Development Grant scheme alone, however, of these, only 981 were in the service sector. (Table 9.3).

It is noticable that two-thirds of all new manufacturing jobs recorded under the scheme were created in small firms, i.e. the entire organisation including associated companies employing fewer than 200 people.

Although there is likely to be some overlap between new independent firms and those claiming regional development grant (see below), it can be be seen that, overall, on an annual basis, new independent firms create as many if not more jobs than traditional regional policy instruments. These new jobs, however, are predominantly in the service sector whereas the main thrust of regional policy is in manufacturing. Roughly 8,000 manufacturing jobs were reported created during 1985, helped by regional policy, yet over the same period we estimate slightly under 3,000 manufacturing jobs in new independent firms will have been generated, i.e. as a result of start-ups in 1983 alone

Table 9.3

	Jobs 'promised' by Regional Development grants - 29 Nov.1984 to 30 June 1986	Estimated jobs created in new firms starting in 1983 by 2nd. year of life (by 1985)
Large Firms	4500	-
Manufacturing		
Small Firms	8800	-
	13300	2813
Services		
All	981	7949
All	14281	10762

within 2 years of business life. In other words, the main effect of regional development grants seem to be in aiding the creation of new jobs in existing manufacturing firms via expansions or in-moves, rather than the creation of new jobs in new independent (largely indigenous) firms.

The Regions

By using the same methods outlined above and making the major assumptions that the average start-up size and employment growth rates of new independent firms are consistent across regions of the U.K. and are assumed to be identical to those in the survey - it is possible to make very approximate estimates of jobs created in new manufacturing firms in the U.K. as a whole.

Table 9.4 details the estimates by the 11 standard regions of the U.K. Of the 16,200 manufacturing firms setting up in 1983, immediately providing 37,000 manufacturing jobs, only 10,400 were still in existence in the third year after start-up, but these had provided a total of almost 121,000 badly needed manufacturing jobs. The estimates are made for each of the regions and are compared with the total manufacturing employment base for each in Table 9.5. Overall, new firms starting up in 1983 will have created slightly over 2½% of manufacturing employment (in 1983) within 3 years of life.

The contribution of new firms to job creation vary significantly across the regions and indeed highlight the warnings given by Storey that policies on a national scale designed to raise the rate of new firm formation risk being regionally divisive (Storey and March 1980, p.10). Since such policies are likely to bring a larger response from those living in the South East where the need to create new employment is least. At the same time the assisted areas are likely to respond only on a lower scale. New firm policies adopted on a national scale, therefore, appear to work in the opposite direction to traditional regional policy.

Table 9.5 shows that the main effect of new manufacturing employment is in the South East with all the other regions significantly behind. The contribution of new firms to total manufacturing employment in Scotland is only 40% of

Table 9.4 Estimated Job Creation in New Manufacturing Firms in the U.K.

(Figures in parenthesis are numbers of firms, other figures represent employment)

Region	Start-Up		6 months		6 months - 12 months		2nd. Year		3rd. Year	
North	(450)	1035	428)	1485	(398)	1684	(340)	2467	(289)	3349
Yorkshire & Humberside	(1098)	2525	(1044)	3623	(970	4103	(829)	6010	(705)	8157
North West	(1510)	3473	(1436)	4983	(1335)	5647	(1142)	8279	(973)	11258
East Midlands	(1180)	2714	(1132)	3928	(1043)	4412	(892)	6467	(759)	8782
West Midlands	(1683)	3870	(1600)	5552	(1487)	6290	(1272)	9222	(1082)	12518
East Anglia	(531)	1221	(505)	1752	469)	1984	(401)	2907	(341)	3945
South West	(1103)	2537	(1049)	3640	(975)	4124	(834)	6046	(709)	8203
South East	(6118)	14232	(5818)	20188	(5408)	22876	(4625)	33531	(3934)	45516
Scotland	(717)	1650	(682)	2367	(634)	2682	(542)	3929	(461)	5334
Wales	(513)	1180	488)	1693	454)	1920	(388)	2813	(330)	3818
Northern Ireland	(257)	5911	(244)	847	(227)	960	(194)	1406	(165)	1909
U.K. Total	(16212)	37288	(15418)	53500	(14332)	60624	(12257)	88863	(10425)	120617

Source: Survey (South Wales, 1985)

Notes: See text, Appendix E.

Table 9.5 Relative Magnitude of Job Creation in New Manufacturing Firms in the U.K.

Base Year 1983

Region	Total (1) Manufacturing Employment 1983	Employment in new (2) firms in 3rd year after 1983 start	New Employment as % of total	Rank
North	228,855	3,349	1.46	10
Yorkshire & Humberside	409,016	8,157	1.99	8
North West	593,538	11,258	1.90	9
East Midlands	432,563	8,782	2.03	7
West Midlands	603,540	12,518	2.07	5
East Anglia	155,268	3,945	2.54	3
South West	320,756	8,203	2.56	2
South East	1,403,622	45,516	3.24	1
Scotland	393,805	5,334	1.35	11
Wales	154,071	3,818	2.48	4
Northern Ireland	92,734	1,909	2.06	6
U.K. Total	4,778,577	120,617	2.52	

Source: 1. Central Statistical Office, Regional Trends 1985.

2. Survey (South Wales, 1985):
See text, Appendix E.

that in the South East. The estimates for all the assisted areas are below that of the national average, but the North of England and Scotland are particularly low. The rankings in Table 9.5 show, perhaps surprisingly, that Wales is ranked fourth with regard to the contribution made by new firms to manufacturing employment as a percentage of the total. The 3,818 manufacturing jobs created within 3 years by firms setting up in 1983 is almost 2½% of the 154,071 manufacturing jobs in the region (1983). Apart from the South East, only the South West and East Anglia perform better than the new manufacturing sector of Wales.

It is difficult to put these estimates in perspective because we don't know what is happening to other sections of the economy, the rate of growth or contraction of new firms after the initial 3 years, or the effects of other new firms setting up in earlier periods. Nevertheless, the approach adopted here seems to offer a very lucrative source of information on the dynamics of new firm employment change and it is recommended that a number of surveys of new firm employment size with the age of the firm should be undertaken for the regions of the U.K. and also provide employment data beyond the first 3 years of trading. A large sample on this basis would greatly improve the confidence of the estimates made here and indeed the analysis could be extended to the cumulative effect of successive years of business start-ups.

Role and Performance of Support Agencies

With the aim of achieving new employment and self sustaining regional growth, a large number of support schemes and agencies have been set up in recent years. Many of these pay particular attention to new business ventures and the vast majority deal mainly with small businesses however defined.

By reducing the various frictions involved in new firm formation, particularly at the start-up coordination stage, it is hoped that there will be an increase in the start-up rate, which will (other things remaining the same) result in a larger number of jobs being created. Table 9.1 shows, for example, that on average for Wales during the early 1980's 3½ full-time jobs were created

within 2 years for every new business starting up (in base year) and in the manufacturing sector within 3 years almost 7½ jobs were created for every new manufacturing firm setting up[1].

Clearly if these various support agencies can actually reduce the start-up frictions sufficiently to increase the rate of new firm formation, then at least in the medium term there will be a favourable impact on the labour market.

Most support schemes are available on a national level, but most support agencies are regional in outlook, indeed during the last 3 years there has been a significant trend towards local initiatives. The WDA has recently been decentralised into a series of 8 regional offices, the percentage of local councils in Wales who provide grants for business start-ups is higher than that of any other region[2] and the rapid growth of local enterprise agencies throughout the U.K. demonstrate this localisation of support agencies.

It was shown in Chapter 6 that one of the most important group of problems encountered by new firm founders in starting their business was that of a lack of information in general. Information about financial support schemes, premises, suppliers, legal obligations, obtaining finance, etc. The primary role of most of the support agencies is in fact to fill this information gap. The Small Firms Service is almost purely an information provider and in particular acts as a signpost directing business queries to the relevant authorities.

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1 These figures are obtained by dividing the estimated number of jobs created after 2 years by the numbers of new firms actually starting, they are a net estimate taking into account firm failure and firm growth.

2 See Association of District Councils (1983), p.10.

This section, therefore, examines the performance of these support agencies and enterprise agencies in particular. Does the provision of information in fact effect in any way the ease of starting up the business? Are the characteristics, policies or attitudes of entrepreneurs significantly different for those firms seeking help to start their business?

The sample was deliberately designed so that there were 2 groups; the first was made up of firms whose founders had not had any help from the enterprise agency at all at the start-up stage and probably did not even have contact with one (post approach). The second group was made up of firms whose founders contacted the enterprise agency for help in setting up his business (pre approach).

An analysis of the 2 groups should show up the effect that enterprise agencies actually have on the start-up process, but because members of both groups had contacted an enterprise agency either before or after start-up, it is not possible to make comparisons of growth or general business development.

While there have been a number of other studies on the performance of support agencies, in general they rely on the views of the clients themselves, rather than testing for differences in actual characteristics and showing exactly what (if any) differences exist as a result of contact with an agency.

A report on the clients views of enterprise agencies was published by the Department of the Environment in 1984. The major findings were:-

(a) 45% of clients visited the agency at least 2 months before setting up in business and a further 15% at about the same time they set up.

(b) Most (65%) were looking for general information about setting up, especially financial advice.

(c) 65% of clients said the advice they received significantly helped. However, a quarter of clients said the advice was of no real assistance.

(d) 25% of clients contacted enterprise agencies only and did not seek alternative help or advice.

(e) 85% of clients said that they would recommend others to visit the agencies.

Clearly, local enterprise agencies are in a unique position to encourage business start-up and in particular, growth of indigenous firms, indeed of all the support agencies they have significantly better relationships with new firms. Table 9.6 shows the ratings given by founders interviewed in the present survey to 'support agencies' in Wales.

It is not possible to determine the liklihood of new firms actually contacting enterprise agencies, however, it is clear that about two-thirds of founders thought that the service enterprise agencies (largely free) gave were either excellent or good, significantly higher than that of the other agencies shown.

The Small Firms Service was second in the ratings, but over two-thirds of all firms did not have any contact whatsoever with them.

The agency with the highest profile was the W.D.A., with almost 70% of new firms contacting them for start-up advice. However, the vast majority of these firms were clearly not satisfied with the service obtained from the W.D.A. 69.4% of firms who actually had contact with the W.D.A. thought they were 'poor' and together, 83.5% thought that they were poor or just reasonable, likewise only 1 of the 36 firms thought that the service of the W.D.A. was excellent. In general, considering most of this advice is free, the performance of support agencies in the view of their new firm clients leaves a lot to be desired. The one exception seems to be enterprise agencies, but even these get labelled 'poor' by about one fifth of their clients.

On balance, new businessmen tend to be overwhelmed by the number of support agencies available for them to contact. 42.8% of founders thought that there were too many

different sources of advice [1], many felt that they were simply being passed around from one person to another and sometimes were being lead on, with very little prospect of any practical help. A small number of founders were, in fact, highly critical of certain agencies (the W.D.A. in particular), to the point of hostility and bitterness. Some had been misinformed and regarded time spent in interviews with some agencies as time wasting. Perhaps the most general criticism was that advice and information on particular schemes or particular problem areas was not volunteered and to get anything out of the agencies you had to know exactly what to ask for. (This was particularly true of grant aided schemes). These problems mean that 49.1%[2] of all respondents thought that in general the standard of help available from agencies as a whole was 'poor'.

From the above it can be argued that enterprise agencies have a more significant, positive impact on the process of firm formation than that of any of the other support agencies.

An attempt will now be made to identify the nature of this impact to see what enterprise agencies actually achieve in attempting to further new business development in their locality. The main problem in comparing subgroups within the overall sample is the need to control, for other relationships in such a small sample, rigorous controlling would make like pairs so few in number that the level of confidence attached to the results would be very low. However, there are no readily identifiable biases in the sample of firms approaching enterprise agencies before or after start-up (no obvious spurious relationship exists).

The main differences in the 2 groups which cannot be related to the timing of their approach to an enterprise agency are those in motivations for becoming self employed. Table 9.8 shows that firms approaching enterprise agencies for help after they had started their

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1 42.8% thought too much help available
40.0% thought enough help was available
17.2% though that not enough help was available

2 Rankings were 'Excellent', 'Good', 'Reasonable' or 'Poor'.

Table 9.6

Attitudes to Support Agencies/Bodies

Perceptions By Founders

Agency	Type	Excellent	Good	Reasonable	Poor	No Contact
W.D.A.	Pre	1 (7.1)	3 (21.4)	1 (7.1)	9 (64.3)	8 (36.4)
	Post	0 (-)	2 (9.1)	4 (18.2)	16 (72.7)	8 (26.7)
	Total	1 (2.8)	5 (13.9	5 (13.9)	25 (69.4)	16 (30.8)
Welsh Office	Pre	2 (50.0)	1 (25.0)	0 (-)	1 (25.0)	17 (81.0)
	Post	0 (-)	2 (15.4)	4 (30.8)	87 (53.9)	17 (56.7)
	Total	2 (11.8)	3 (17.6)	4 (23.5)	8 (47.1)	34 (66.7)
Enterprise Agencies	Pre	9 (41.0)	7 (31.8)	1 (4.5)	5 (22.7)	N/A
	Post	10 (37.0)	7 (25.9)	5 (18.5)	5 (18.5)	N/A
	Total	19 (38.8)	14 (28.6)	6 (12.2)	10 (20.4)	N/A
County Councils	Pre	0 (-)	5 45.5)	1 (9.1)	5 (45.5)	11 (50.0)
	Post	0 (-	9 (50.0)	4 (22.2)	5 (27.7)	11 (37.9)
	Total	0 (-)	14 (48.3)	5 (17.2)	10 (34.5)	22 (43.1)
S.F.S.	Pre	2 (20.0)	3 (30.0)	2 (20.0)	3 (30.0)	12 (54.5)
	Post	0 (-)	4 (66.6)	0 (-)	2 (33.3)	23 (79.3)
	Total	2 (12.5)	7 (43.8)	2 (12.5)	5 (31.3)	35 (68.6)
All	Pre	14 (22.9)	19 (31.1)	5 (8.2)	23 (37.7)	48 (44.0)
	Post	10 (11.6)	24 (27.9)	17 (19.8)	35 (40.7)	59 (40.7)
	Total	24 (15.3)	53 (33.8)	22 (14.0)	58 (36.9)	107 (40.5)

Source: Survey (South Wales, 1985)

Note:
1. Figures in brackets for the No Contact column are calculated as a percentage of all firms responding.
2. Figures in brackets elsewhere (i.e. ratings) are calculated as a percentage of all firms who actually had contact with the respective agencies.
3. All firms had contact with enterprise agencies - from which the sample was derived. It is not appropriate to use these in the total figures for use of support agencies

business were more likely to have left the position of last employment as a result of closure and redundancy than those who obtained significant help from enterprise agencies in order to start-up. This latter group left employment for numerous other reasons, ranging from getting the sack to being long term unemployed. In relative terms, twice as many of the post start-up approach group left employment specifically 'to start-up', than the group of pre start-up approaches. This is to some extent reflected in the reasons given by founders for starting a business (Table 9.7), where fewer of the former groups started because there were no other jobs, although the same proportion of each group claimed they 'had always wanted to start their own business'.

Start-ups aided by enterprise agencies actually started at a smaller size in terms of employment than those who were not helped by them (1.7 compared to the average of 2.4 full-time employees)[1].

There is practically no difference in the legal structure of businesses between the before and after approaches and yet the length of time taken to start-up does vary, on average it took slightly over 6 months from the time it was decided to go ahead with the project until trading first took place, for firms who took advice from enterprise agencies. The firms starting up without help from an agency actually took less time (about 2 months less on average) to start the business.

This suggests that enterprise agencies may be stressing caution and increase planning, whereas a number of firms who set-up without this advice did so almost on the spur of the moment (6 firms were founded within 4 weeks).
There is no evidence that those people who went to an enterprise agency for help in starting up have more problems than new firms in general, at least in terms of the number of problems (see Table 9.9), although it was not possible to measure the relative importance of individual problems. Because of the difference in timing of the help received from an agency we are unable to

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1 The average rate of growth of post start-up approaches was slightly higher than the other group even allowing for their older age on average.

Table 9.7 Reasons Given by Founders for Starting a Business: By Approach to Enterprise Agencies

(Figures in parenthesis are percentages)

Approach / Mention	Enterprise Agency Approached Before Start-Up	Enterprise Agency Approached After Start-Up
No other jobs	10 (34.5)	8 (27.6)
Independence/ Money	7 (24.1)	5 (17.2)
Opportunity Gap	4 (13.8)	5 (17.2)
Always wanted	4 (13.8)	4 (13.8)
Other	4 (13.8)	7 (24.1)
All	29 (100)	29 (100)

Source: Survey (South Wales, 1985)

Table 9.8 Reason Given by Founders for Leaving Employment: By Approach to Enterprise Agency

Figures in parenthesis are percentages

Mention	Enterprise Agency Approached Before Start-Up	Enterprise Agency Approached After Start-Up
Redundancy	7 (28.0)	6 (22.2)
Closure	3 (8.0)	8 (29.6)
Health	2 (8.0)	2 (7.4)
To Start-Up	4 (16.0)	9 (33.3)
Other	9 (36.0)	2 (7.4)
All	25 (100)	27 (100)

Source: Survey (South Wales, 1985)

Table 9.9 General Problems Encountered in Setting Up the Business: By Approach to Enterprise Agencies

Figures in parenthesis are percentages

Problem \ Approach	Enterprise Agency Approached	
	Before Start-Up	After Start-Up
None	4 (7.4)	8 (12.7)
Finance	16 (29.6)	15 (23.8)
Market	4 (7.1)	8 (12.7)
Bureaucracy	2 (3.6)	4 (6.3)
Lack of Information	20 (35.7)	15 (23.8)
Labour	2 (3.6)	6 (9.5)
Other	6 (10.7)	6 (9.5)
All	54 (100)	63 (100)

Source: Survey (South Wales, 1985)

identify whether the general problems mentioned were in fact caused by the agencies or were in evidence before actually contacting them.

Those seeking help tended to have less problems in finding labour initially, although this may be due to the lower start-up size on average rather than anything the enterprise agency was able to do. Problems of finance and in particular, problems associated with the lack of information, were more significant in the group who obtained start-up help than those that did not and indeed, these were the major reasons for approaching an enterprise agency, as reported by the Department of the Environment (1984, pp.6-7). Since we are unable to draw any firm conclusions from the mentions of problems at start-up, we now look at individual features of businesses to identify the effects of support agencies in general.

With many firms seeking help from enterprise agencies, specifically on financial matters, significant differences are likely to be apparent. The average start-up capital of firms receiving help from enterprise agencies was only slightly over £8,000 which was only half that required by firms who had started up. Despite this, significantly less use was made of bank finance (either loan or overdraft) than the group who received start-up help (Table 9.10). While the importance of personal savings was roughly the same in both groups, those firms starting with no agency help relied more on loans or gifts from friends or relatives and especially on obtaining further funds from a financial partner.

The main difference between the 2 groups with regard to the problems of obtaining bank finance was that banks seemed to have more confidence in the projects proposed by enterprise agency clients than those who were starting up on their own. (Table 9.11). As such, banks were asking for guarantees that this latter group were either unable or unwilling to provide. It can also be seen that a higher proportion of founders who did not obtain start-up advice actually had problems in obtaining outside finance, although this may be due to the higher start-up sums involved, rather than the effect of enterprise agencies in overcoming financing problems of new firms.

Table 9.10 Financial Characteristics of New Firms

Sources of Start-Up Finance

Source	E.A. helped Start-Up		No Start-Up Help	
	No.	%	No.	%
Personal savings	24	33.3	27	36.9
House/mortgage, security	8	11.1	5	6.8
Loan/gift, friend or relative	1	1.4	6	8.2
Bank loan	9	12.5	60	8.2
Bank overdraft	16	22.2	10	13.7
Partnership finance	4	5.6	14	19.2
Grant	10	13.9	5	6.8
All mentions	72	(100)	73	(100)

Source: Survey (South Wales, 1985)

Table 9.11 Problems in Obtaining Bank Finance To Start-Up

Problem \ Approach	E.A. helped start-up		No start-up help	
	No.	%	No.	%
No problems	12	38.7	8	29.6
Lack guarantees	7	22.6	8	29.6
Not prepared to offer house as security	3	9.7	3	11.1
Banks lack of belief in project	2	6.5	6	22.2
Interest rates too high	3	9.7	0	0
Other	4	19.9	2	7.4
All mentions	31	(100)	27	(100)

Source: Survey (South Wales, 1985)

Those firms that did obtain advice from enterprise agencies, generally did more preparatory work in the planning of the start-up than other firms and indeed, this may account for the larger periods taken for these to start their business. Table 6.2 shows that relatively more firms receiving start-up help had produced a formal business plan, but this was particularly the case with regard to market research where 57% of this group undertook what they regarded as significant efforts on the market research front, compared to less than a third of those firms which had been set-up independently of any advice. Interestingly, however, it is clear that those firms who had a cash flow plan produced for them, usually free of charge by the enterprise agency, very rarely used this as a monitoring or updating device (only 15% used their business plan again), in contrast those firms which did not receive the benefit of free business plans and cash flow forecasting, although slightly less likely to have a plan, were more likely to use them again after the start-up itself (43% did so). Perhaps this group valued the business plans produced initially more than the group being helped by enterprise agencies either because they had to pay expensive accountants fees in their preparation or because they more readily identified the importance of management control and planning information.

However, it is noticable that there was no difference in the use of book-keeping and accountancy information between the two groups, in both cases around 80% said that this was used for tax purposes only. Clearly enterprise agencies have little effect on the sophistication of accounting procedures adopted let alone on the recognition of the need for such basic information. Pricing methods of members of both groups were, in general, quite similar with slightly under 50% in both groups deriving a price based on the benchmark price of nearest competitors. Cost plus pricing was applied equally between both groups. The main difference in initial pricing methods was that of the group of firms setting up without agency contact. About 20% relied on crude guessing (usually of some unsystematic price discrimination), whereas only 5.5% of mentions of the enterprise group were of this type. This may partly be explained by the lower proportion of these firms producing formal business plans and so have little to go on when setting a price.

Since the main role of an enterprise agency is that of an information provider, it is necessary to test whether there are in fact significant differences in awareness and use of various schemes between those firms receiving help at start-up and those that do not.

Perhaps most surprising of all is that only 48% of firms seeking initial advice for enterprise agencies actually knew if they were in an assisted area or not. This is slightly lower than for the sample as a whole, but the difference is not significant, bearing in mind the sampling error involved. While an analysis of firms which had never approached an enterprise agency at all may discover an even lower awareness of the assisted status of business location, it is obviously far from satisfactory that half of the firms who were clients of enterprise agencies either did not know or were wrong about the assisted area status of their business.

Table 9.12 provides further evidence on the awareness[1] and use of financial support schemes.

Only one third of the aided group of firms actually looked around for alternative sites compared to the 48% of other firms. The difference is largely explained by the existence of start-up units available to clients of most enterprise agencies which offer very advantageous 'fast in, easy out' rental terms.

The level of awareness of the different schemes vary considerably, but are generally higher than that reported by the Economists Advisory Group in June 1983 (pp.26-27). They found, for example, that only 36% of small firms in their survey were aware (after prompting) of the small firms loan guarantee scheme. Twice as many firms in the present survey (Table 9.2) were aware of this scheme.

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1 The awareness in Table 9.2 refers to awareness after prompting, the basics of the schemes were explained to founders during the interviews, since they tended not to know schemes by their names.

Table 9.12 AWARENESS AND USE OF FINANCIAL SUPPORT SCHEMES

Figures in parenthesis are percentages

Type \ Scheme		Small Firms Loan Guarantee	Business Expansion Scheme	Regional Development Grants	Regional Selective Assistance	Enterprise Allowance Scheme
All	Aware	41 (73.2)	15 (26.8)	45 (80.4)	14 (25.0)	44 (78.6)
	Eligible	53	9	39 (old scheme) 20 (new scheme)	47	51
	Use	3 (5.4)	0 (-)	9 (16.1)	5 (8.9)	16
Pre Approach to Enterprise Agenices	Awareness	17 (65.4)	8 (30.8)	19 (73.1)	4 (15.4)	24 (92.3)
	Use	1 (3.8)	0 (-)	2 (7.7)	1 (3.8)	13 (50.0)
Post Approach to Enterprise Agencies	Awareness	24 (80.0)	7 (23.3)	26 (86.7)	10 (33.3)	20 (66.7)
	Use	2 (6.7)	0 (-)	7 (23.3)	4 (13.3)	3 (10.0)

Source: Survey (South Wales, 1985)

a) Commission Agents not eligible

b) By-outs and franchises not eligible

Taking each scheme in turn:-

1. The small firms loan guarantee scheme is available on a national basis with few other restrictions, in fact 53 of the firms in this survey would be eligible and although most firms were aware of this scheme, only 3 actually made use of it. At first sight it is surprising that a lower proportion of firms seeking advice from enterprise agencies, actually knew about the scheme, however, enterprise agencies in general were dismayed at the lack of readiness of banks to support a Government loan guarantee. Because of this they may have decided not to inform clients about the scheme in an effort not to raise their hopes of obtaining a loan especially since on average each enterprise agency had only used the scheme a handful of times.

2. The business expansion scheme formerly called the business start-up scheme is only available to limited companies and although only 9 firms in this survey would have been eligible, many more could have been if they simply became incorporated. The practical problem with this scheme is that only slightly over a quarter of firms (even after prompting) were aware of its existence. None in fact used it.

3. Regional development grants were known to over 80% of the firms in the survey, although we have seen previously that only around half knew if they would, in fact be elgible. Since only manufacturing firms were eligible pre 1985, a maximum of 39 new firms could have received financial support for capital investment, of these only 9 firms actually applied for a regional development grant and surprisingly these were mainly firms who had not had any contact with enterprise agencies at the start-up stage. This group in fact were significantly more aware of development grants than those who received help in starting up.

4. During interviews with representatives of the enterprise agencies in Wales, it was clear that they

regarded regional selective assistance (now selective financial assistance) as being for large projects rather than new indigenous firms. As a result only 4 of the 26 firms who approached enterprise agencies were aware of this assistance. Twice as many of the other group of firms knew of regional selective assistance and indeed, 4 of the 5 firms receiving these grants had not approached agencies at start-up.

5. By far the most used of these schemes was the enterprise allowance scheme which is an allowance of £40 per week for the self employed for the first year of business life. The scheme is nationally available with few restrictions. 51 of the 57 firms in this survey were eligible for this, however, the scheme had not started up when some of the firms were being formed and the scheme is not retrospective. Because of this, awareness the scheme is of major importance, since applications cannot be made after trading has taken place - this in fact proved to be a major cause of hostility among some founders who either had not been told or were misinformed about the scheme. Awareness of this scheme was significantly higher among firms seeking help from enterprise agencies and in fact, half of all these obtained a place on the scheme, compared to only 1 in 10 of those who had not approached the agencies.

It is difficult to draw conclusions from this, although general awareness of schemes is less for those firms who were clients of enterprise agencies at the start-up stage. It seems that this is not so much a failing on the part of the information providers, but that they were being highly selective in the information that they gave, probably to avoid confusion - while this may be a good thing at the start-up stage it results in a low general awareness of a number of other schemes that firms could potentially make use of. On the basis of this evidence the hypothesis that clients of enterprise agencies are significantly more well-informed than other firms in general, remain unproven and indeed, it is not possible to reject the opposite case that they are in fact less well-informed particularly about support schemes than other firms who had not received start-up advice.

Table 9.13 Perceived Relationship with Banks:

By New Firm Founders

Type	Rating			
	Excellent	Good	Reasonable	Poor
Enterprise Agencies approached before start-up	15 (60.0)	6 (24.0)	2 (8.0)	2 (8.0)
Enterprise Agencies approached after start-up	11 (40.0)	8 (28.6)	3 (10.7)	6 (21.4)
All	26 (49.0)	14 (26.4)	5 (9.4)	8 (15.1)

Source: Survey

The most noticable effect that enterprise agencies have on new firms is however, intangible. After receiving help and advice from a local enterprise agency the relationships with other bodies seem to improve significantly, other support schemes seem to take more seriously referrals from enterprise agencies and banks in particular seem to be able to put more confidence in the prospective new firm founder who has done his homework and obtained advice from an agency. Table 9.13 shows that founders thought that the relationship with their banks at the start-up stage were better than those who had not come after an enterprise agency counselling session. This is clearly an important advantage to have during the complex activities of the start-up coordination process.

Referring back to Table 9.6, attitudes to support agencies in general are more favourable if founders had visited an enterprise agency. (The exception is county councils, but these have an important role in sponsoring enterprise agencies anyway). It seems that again, enterprise agencies were selecting the information about relevant agencies to give to their clients since contact with outside agencies are lower for those firms being helped by enterprise agencies than those who were not. As a result more favourable relationships exist, although these remain far from satisfactory, considering the counselling is supposed to be free of charge and helpful. For example, almost two-thirds of firms who had approached an enterprise agency still thought the W.D.A. was 'poor'.

The Scope for Small Firms Policies in Wales

It was demonstrated in Chapter 4 that there is potential scope for small firm policies in Wales. It was shown that overall rates of start-up in Welsh manufacturing and service sectors were significantly below those of the U.K. as a whole.

Table 9.14 shows the actual numbers of business start-ups as measured by V.A.T. registrations. These are compared with the number of start-ups that would be expected if all counties of Wales had the same rate of new firm formation as the U.K. average. Thus, if some small firms policy was available in the Welsh region that was able to raise the rate of firm birth to that of the U.K., then another 214

Table 9.14 A Comparison of Actual and Expected Business Start-Ups in Wales

	Actual starts (over period)	Manufacturing Sector		
		Expected[1] starts (over period)	Difference[2] in starts per year	Estimated[3] new firm employment per year
Gwent	393	473	-20	-110
Mid Glam.	294	514	-55	-301
S. Glam.	340	490	-37	-205
W. Glam.	254	445	-48	-261
Industrial S. Wales	-	-	-	-877
Wales	2052	2908	-214	-1173

		Service Sector		
Gwent	1500	2108	-152	-474
M. Glam.	1382	2292	-228	-710
S. Glam.	1694	2184	-123	-382
W. Glam.	1237	1983	-187	-582
Industrial S. Wales	-	-	-	-2148
Wales	10187	12971	-696	-2171

Source: (a) Survey (South Wales, 1985)

(b) Department of Trade and Industry, Analysis of Sectors of Business by Counties for 1980-1983, British Business, 1985, 18th January.

Notes: (1) Expected figures based on U.K. average start-up rate.

(2) V.A.T. figures are given over a 4-year period - simple average per annum.

(3) Within 2 years of start-up (See Appendix E).

manufacturing and almost 700 service sector firms being started up in Wales as a whole would provide an estimated 3,000 jobs within the first two years of start-up in industrial South Wales alone. Mid Glamorgan would be the principle beneficiary of such a successful policy with almost 1,000 new jobs being created in that county (split 30%-70% between manufacturing and service employment respectively).

A method for partially analysing the scope and impact of small firm policies is provided in Appendix F. Based on for foregoing analysis and the review of the financial screening process in Chapter 5, a simple simulation model is outlined. By simulating successive applications for financial backing it is possible to begin to examine the effect of various policies designed to increase the rate of new firm formation.

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CHAPTER 10

CONCLUSION

It has been shown that the birth of new independent firms in Wales has proved to be an important source of new employment during the early 1980's and small firms policies which are successful in being able to increase the rate of business start-ups in Wales to that of the U.K. as a whole may further increase the importance of this source of new employment. However, an important warning must be borne in mind when drawing conclusions from this and all other studies of new firm formation which are quite understandably dominated by supply based factors (the supply of entrepreneurs).

Research has shown that the rate of new firm formation is effected by a whole range of factors, the size distribution of existing firms, the industrial structure at regional and sub-regional level, the occupational structure of the workforce, the stability of local labour markets, mobility of labour, regional differences in risk aversion and wage rate differentials. The most striking observation about these explanations is, however, that they all affect only the supply side of the new firm formation analysis. Policies which take these into account without consideration of the underlying demand factors may simply result in higher failure rates, lower profitability and entrepreneurial apathy.

The problem of course, is that determining a 'demand for new firms' function is almost an impossible task especially at the high levels of sectorial and spacial aggregation with which most studies deal. The problem of identification (of the demand elements) on the part of the researcher does not of course mean that they can be ignored or that they are unimportant. For service firms in particular the demand for new firms will depend on the level of aggregate demand at their local level and for the economy as a whole the demand for new firms will be related positively to the rate of economic and technical change (both at the commodity and factor market level), to the level of demand and potential demand (for products and

services not yet on the market) to the ease of substitution between products of existing firms and new firms and to the limits to growth of the existing stock of business in the economy.

Due to the obvious problems involved in the measurement of these influences it is possible that further research into the theory of new firm formation may be better devoting its effort to more theoretical rather than applied approaches adopted so far.

The process leading up to the formation of a new firm was viewed as a series of filters, with the numbers of potential entrepreneurs decreasing as each filter is passed. Although the importance of the personal assessment filter was recognised it is the financial screening process which was analysed in depth.

The financial screening process was shown to have significant effects on both the number and type of business start-ups. Almost half of the founders thought that the availability or otherwise of finance had actually effected adversely the size of eventual start-up (in terms of capital and labour employed) and around a third claimed that the lack of available finance had prevented them from proceeding with other business ideas.

With at least 2/3rds of all founders requiring banks financial backing, it is clear that understanding the nature of the financial screening process is vital to the study of the new firm formation process. It was shown that the financial screen can be viewed as a set of criteria which reduce to a largely subjective assessment of the founder and his project. Research into barrier theory and limit pricing may, therefore, be usefully directed at the nature of the financial screen as a secondary barrier to entry since it effectively synthesises and evaluates independently the significance of the various primary barriers to entry.

The study has provided information 'first hand' so to speak on barriers to entry and in particular, barriers as a result of existing firms reaction patterns. It was found that new firms in the final products (and business services) sector tend to be more aware of obsticles to starting up (as a result of existing firms practices) than

those in intermediate product groups. Overall, almost half (47%) expected a reaction from incumbent firms in response to their entry to the market and slightly more (57%) actually experienced a significant incumbant reaction. The most important reaction of competitors was in fact to reduce their prices and increase their advertising or 'servicing' activities. Finally, despite being considerably smaller in terms of entry size, reaction patterns seem to be higher for new firms than other modes of entry such as direct acquisition.

An extensive review of the literature has revealed that this study is one of the few to actually look at how new firms actually set a price for their product or service in practice, both at the time of initial trading and subsequently. It has been shown that existing theories of product pricing were inappropriate for the rather specialised, if not unique, problem of new firm pricing decisions.

The widespread practice of benchmarking at least in the early stages of trading invalidates the concept of elasticity in an operational sense. (Indeed, only a few firms had actually attempted to experiment with price changes). The section on new firm pricing practices casts considerable doubt on the widespread validity of the cost plus or full cost pricing principle. While some firms undoubtedly use this principle, almost any price however determined could be seen to be made up of a cost element and a profit element. Thus, studies of pricing practices tend to look at the process after the decision is made and so the price derived can most easily be explained as a cost plus some percentage mark up. This, however, is a description of what the price is, but not how it is arrived at.

The model of new firm pricing suggested in this study argues that price itself is in fact set before costs are even calculated. The initial price is benchmarked against the new firm's nearest competitor in both spacial and product characteristic terms. A decision is then taken either to charge the same or a lower price with the widespread recognition of product differentiation. For

many new firms the model suggests that it is cost and not price that is the variable and the size of the margin between the two is an important element in the founders assessment of the risk of the venture and thus to initial size and even its overall viability.

The infant stages of business life are associated with rapid growth in employment, almost doubling in size by the end of the first year alone. Despite this growth, however, there is very little increase in the sophistication of marketing approaches or of accountancy and management information systems. (If anything the latter actually deteriorates to little more than compliance with legal requirements).

The limits of growth of these new firms are dominated by demand factors. However, these are heavily concentrated in those firms who are currently operating at low levels of capacity. The most important constraint on the growth of those firms currently running at high capacity levels is not market related, but is the problem of finding skilled and trustworthy labour.

One further implication for further research into new firms in their job generation guise can be derived from the methods employed in this study to estimate the job creation potential of new firms in Wales. A large scale survey of employment growth in new and young firms in the U.K. (even based on a simple telephone survey) and its regions and which covered both manufacturing and service sectors would allow far more acurate estimates to be made of gross job creation in new firms. This along with new and updated V.A.T. statistics on business births and lifespan would greatly improve our knowledge of the dynamics of change in new firm employment, without encountering the problems associated with the components of change change approach at the aggregate level. Thus, although the actual estimates made here must remain highly tentative (based on such a small sample) the approach adopted seems to offer a cost effective method to estimate the importance of new firms to the job creation process.

Overall rates of business start-up in Wales (1979-83) were 12.6% below the national average. Furthermore, each of the counties in Industrial South Wales have start-up rates lower than that for Wales as a whole. Start-Up rates are

particularly low in the professional and 'other' services sector, but also in wholesale and manufacturing. The latter is almost 30% below that of the U.K.

Despite this, it is estimated that new independent firms setting up in Wales during 1983 had provided over 10,000 new jobs within 2 years of start-up - about a quarter of these were in the manufacturing sector.

This particular sample suggests that the effects of regional industrial structure on new firm formation, although important, are generally less significant in Wales than for other parts of the U.K. The exception to this is the ownership status of incubator plants where the dominance of 'medium sized' branch plants seem to have adverse effects on the rate of firm formation.

The proportion of school leavers going on to degree courses in Wales is the highest in the U.K. It seems that new Welsh entrepreneurs in the 1980's are more likely to have degree qualifications than those in the North region or the South Coast of England. This may be a particular advanatage since firms owned by graduates are seen to out-perform other new firms in terms of growth in both employment and turnover.

The motivations of founders of new firms in Wales in the 1980's seem to be less reliant on the positive pull aspects of entrepreneurship than studies for other areas in the 1970's have suggested. In fact, at least a third of all reasons for becoming self-employed in Wales are the result of being pushed or forced into entrepreneurship. The specific motive being the lack of available alternative employment.

Unless these differences in reported motivations for founding a business can be explained solely in terms of regional characteristics then it appears that changes in the overall economic climate during the last 15 years may have had significant effects on the factors underlying the decision to start-up a new business.

APPENDIX A

The following tables are derived from our own database (SWISS) which is itself based on Mid Glamorgan's Industrial Development Units, INDIS DATABASE.

For each of the following tables, the figures in parenthesis represent the number of firms in each classification and size band (based on number of employees). Other figures represent the total number of employees employed by firms in each classification.

Tables A.1 - A.5 show the size distribution of manufacturing units which are not independent.

Table A.1

Size Distribution of Manufacturing Firms By Industry Type for all Counties* - January 1986

All	Employment Size Band															
	1 - 9		10 - 19		20 - 49		50 - 99		100 - 199		200 - 499		500 - 999		1000 +		All	
Metal Mfg. & Extraction	(92)	372	(23)	307	(28)	911	(15)	1035	(17)	2405	(7)	1970	(5)	3332	-	-	(187)	10332
Chemicals	(15)	79	(4)	62	(7)	252	(6)	380	(4)	591	(7)	2184	(3)	1580	(3)	1580	(49)	8213
Metal Goods	(111)	478	(40)	567	(38)	1104	(19)	1255	(12)	1686	(7)	2416	-	-	(2)	6362	(229)	13603
Mechanical Engr.	(128)	559	(73)	1010	(55)	1636	(19)	1128	(9)	1260	(8)	1996	(3)	2126	-	-	(295)	9980
Office Machinery	(2)	7	(2)	32	-	-	-	-	-	-	-	-	(1)	500	-	-	(5)	540
Electrical Engr.	(43)	178	(17)	223	(14)	499	(13)	816	(11)	1302	(6)	1801	(2)	1500	(2)	1500	(2)	4810
Motor Vehicles/ Parts	(17)	75	(7)	80	(7)	215	(1)	90	(4)	670	-	-	(2)	1634	(3)	4149	(41)	6855
Transport Equip.	(26)	109	(6)	82	(1)	43	(2)	150	(3)	440	(1)	200	(1)	875	-	-	(40)	1909
Instruments	(15)	72	(3)	42	(6)	353	(5)	353	(3)	364	(5)	1066	-	-	-	-	(29)	1294
Food/Drink/Tobacco	(78)	373	(27)	367	(20)	427	(13)	908	(7)	546	(7)	2510	(3)	1640	(1)	1500	(156)	864
Textiles	(18)	75	(6)	80	(2)	83	(1)	80	(3)	364	(4)	1133	-	-	-	-	(36)	1815
Leather Goods	(7)	22	(1)	17	(1)	20	-	-	(1)	120	-	-	-	-	-	-	(10)	179
Footware/Clothing	(32)	118	(9)	137	(9)	292	(6)	417	(9)	1305	(5)	1402	(1)	500	-	-	(72)	4257
Wood/Furniture	(157)	590	(28)	361	(18)	581	(14)	904	(14)	1912	(4)	1237	-	-	-	-	(236)	5739
Paper/Publishing	(102)	388	(33)	445	(26)	726	(7)	505	(8)	1018	(3)	777	(2)	1450	(1)	1046	(181)	5081
Rubber/Plastics	(27)	148	(14)	184	(16)	437	(13)	817	(7)	1000	(6)	1961	(2)	1051	-	-	(86)	6819
Other Manufacturing	(34)	125	(6)	75	(4)	122	(2)	135	(2)	290	(1)	228	-	-	(2)	2290	(51)	3265
Not Classified	(61)	221	(38)	548	(16)	462	(11)	766	(6)	795	(3)	820	(3)	1860	(2)	3583	(140)	9155
Total (Sum)	(964)	4089	(337)	4611	(267)	7809	(146)	9096	(120)	16376	(75)	21268	(29)	18048	(15)	25825	(1948)	109085

Source: SWISS (1986)

Notes: Figures in parenthesis represent number of firms in each group, other figures represent number of employees.

Table A.2

Size Distribution of Manufacturing Firms by Industry Type for the County of Mid Glamorgan - January 1986

Employment Size Band

Mid Glamorgan	1 - 9		10 - 19		20 - 49		50 - 99		100 - 199		200 - 499		500 - 999		1000 +		All	
Metal Mfg. & Extraction	(9)	52	(6)	87	(9)	294	(3)	198	(10)	1343	(3)	719	-	-	-	-	(40)	2693
Chemicals	(6)	36	(2)	35	(4)	133	(4)	240	(2)	260	(5)	1633	(1)	580	(1)	1000	(25)	3917
Metal Goods	(27)	112	(22)	315	(16)	456	(7)	483	(9)	1318	(5)	1626	-	-	-	-	(86)	4310
Mechanical Engr.	(25)	118	(28)	382	(19)	603	(5)	267	(2)	266	(4)	1280	(1)	600	-	-	(84)	3616
Office Machinery	-	-	-	-	-	-	-	-	-	-	-	-	(1)	500	-	-	(1)	500
Electrical Engr.	(8)	32	(5)	58	(5)	186	(5)	372	(6)	930	(4)	1191	(1)	786	(2)	4810	(36)	8365
Motor Vehicles/ Parts	(2)	10	(3)	34	(3)	87	(1)	90	(4)	607	-	-	(1)	764	-	-	(14)	1592
Transport Equip.	(2)	12	(2)	21	-	-	-	-	(2)	310	-	-	(1)	875	-	-	(7)	1218
Instruments	(4)	24	-	-	(2)	62	(2)	146	(1)	107	(2)	433	-	-	-	-	(11)	772
Food/Drink/Tobacco	(4)	15	(3)	39	(3)	87	(3)	195	(2)	225	(5)	1860	-	-	-	-	(20)	2421
Textiles	(1)	7	(1)	14	(1)	38	(1)	80	(1)	104	(3)	880	-	-	-	-	(8)	1123
Leather Goods	-	-	(1)	17	-	-	-	-	(1)	120	-	-	-	-	-	-	(2)	137
Footware/Clothing	(1)	3	(5)	73	(6)	191	(2)	115	(7)	1037	(3)	992	(1)	500	-	-	(25)	2911
Wood/Furniture	(14)	56	(8)	95	(10)	321	(6)	386	(7)	1071	(3)	939	-	-	-	-	(48)	2868
Paper/Publishing	(16)	73	(11)	152	(10)	357	(4)	253	(6)	765	(2)	567	(2)	1450	-	-	(51)	2248
Rubber/Plastics	(8)	51	(7)	87	(7)	192	(9)	565	(4)	573	(3)	840	-	-	-	-	(38)	3526
Other Manufacturing	(7)	37	(4)	55	(2)	66	(2)	135	(2)	290	(1)	228	-	-	(1)	1290	(19)	2101
Not Classified	(18)	120	(15)	214	(8)	207	(9)	646	(2)	315	-	-	-	-	(1)	2100	(53)	3602
Total (Sum)	(152)	758	(123)	1678	(105)	3280	(63)	4171	(68)	9581	(43)	13188	(9)	6055	(4)	8200	(568)	47911

Source: SWISS (1986)

Notes: Figures in parenthesis represent number of firms in each group, other figures represent number of employees.

Table A.3 Size Distribution of Manufacturing Firms by Industry Type for the County of South Glamorgan - January 1986

South Glamorgan	Employment Size Band: 1 - 9		10 - 19		20 - 49		50 - 99		100 - 199		200 - 499		500 - 999		1000 +		All	
Metal Mfg. & Extraction	(14)	55	(5)	69	(7)	251	(5)	330	(1)	152	(3)	881	(2)	1120	-	-	(37)	2858
Chemicals	(2)	6	(1)	13	(1)	45	(1)	64	(1)	167	(1)	350	(2)	1000	-	-	(9)	1645
Metal Goods	(32)	156	(12)	157	(11)	335	(4)	220	(2)	251	(2)	525	-	-	-	-	(63)	1644
Mechanical Engr.	(47)	214	(17)	225	(20)	595	(6)	381	(4)	534	(2)	456	-	-	-	-	(96)	2405
Office Machinery	-	-	(1)	17	-	-	-	-	-	-	-	-	-	-	-	-	(1)	17
Electrical Eng.	(15)	61	(5)	71	(2)	59	(7)	444	-	-	-	-	-	-	-	-	(29)	635
Motor Vehicles/ Parts	(3)	10	(1)	12	(1)	30	-	-	-	-	-	-	-	-	-	-	(5)	52
Transport Equip.	(8)	28	(2)	35	-	-	(1)	65	-	-	(1)	200	-	-	-	-	(12)	328
Instruments	(3)	15	(2)	29	(1)	21	(1)	61	(1)	150	-	-	-	-	-	-	(8)	276
Food/Drink/Tobacco	(3)	18	(5)	76	(1)	40	(4)	294	-	-	(1)	350	(2)	1110	(1)	1500	(17)	3388
Textiles	(1)	5	-	-	-	-	-	-	-	-	-	-	-	-	-	-	(1)	5
Leather Goods	-	-	-	-	(1)	20	-	-	-	-	-	-	-	-	-	-	(1)	20
Footware/Clothing	(3)	14	-	-	(1)	26	-	-	-	-	-	-	-	-	-	-	(4)	40
Wood/Furniture	(39)	184	(8)	114	(4)	146	(4)	260	(2)	300	-	-	-	-	-	-	(57)	1104
Paper/Publishing	(36)	132	(14)	188	(7)	191	(2)	166	(1)	145	-	-	-	-	(1)	1046	(61)	1868
Rubber/Plastics	(7)	37	(3)	44	(3)	78	(2)	100	-	-	-	-	(1)	500	-	-	(16)	759
Other Manufacturing	(10)	34	(1)	10	(2)	56	-	-	-	-	-	-	-	-	-	-	(13)	100
Not Classified	(1)	4	(1)	14	(1)	30	(1)	70	(2)	200	-	-	-	-	-	-	(6)	318
Total (Sum)	(224)	973	(78)	1074	(63)	1923	(38)	2455	(14)	1899	(10)	2762	(7)	3730	(2)	2546	(436)	17362

Source: SWISS (1986)

Notes: Figures in parenthesis represent number of firms in each group, other figures represent number of employees.

Table A.4

Size Distribution of Manufacturing Firms by Industry Type for County of West Glamorgan - January 1986

West Glamorgan	Employment Size Band: 1 - 9		10 - 19		20 - 49		50 - 99		100 - 199		200 - 499		500 - 999		1000 +		All	
Metal Mfg. & Extraction	(17)	74	(5)	60	(3)	87	(5)	375	(6)	910	(1)	370	(3)	2212	-	-	(40)	4088
Chemicals	(3)	17	(1)	14	-	-	(1)	76	(1)	164	(1)	201	-	-	(2)	2085	(9)	2557
Metal Goods	(22)	90	(3)	50	(4)	130	(5)	361	(1)	117	-	-	-	-	(2)	6362	(37)	7110
Mechanical Engr.	(21)	81	(16)	222	(6)	131	(6)	367	(2)	300	(1)	265	(1)	750	-	-	(53)	2116
Office Machinery	(1)	2	(1)	16	-	-	-	-	-	-	-	-	-	-	-	-	(2)	18
Electrical Engr.	(10)	42	(5)	65	(6)	219	-	-	(2)	268	(2)	610	(1)	714	-	-	(26)	1918
Motor Vehicles/ Parts	(2)	15	(2)	24	(3)	98	-	-	-	-	-	-	(1)	870	(2)	2920	(10)	3932
Transport Equip.	(1)	2	(1)	10	-	-	-	-	(1)	130	-	-	-	-	-	-	(3)	142
Instruments	(5)	23	(1)	13	-	-	-	-	-	-	(1)	200	-	-	-	-	(7)	236
Food/Drink/Tobacco	(5)	28	(5)	68	(6)	180	(3)	198	-	-	(1)	300	(1)	630	-	-	(21)	1304
Textiles	(2)	8	-	-	(1)	45	-	-	-	-	-	-	-	-	-	-	(3)	53
Leather Goods	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Footware/Clothing	(5)	24	(1)	15	(1)	35	(2)	165	(2)	268	(1)	206	-	-	-	-	(12)	713
Wood/Furniture	(19)	84	(7)	86	(1)	35	(2)	130	(4)	472	(1)	298	-	-	-	-	(34)	1105
Paper/Publishing	(16)	63	(5)	67	(4)	101	-	-	-	-	(1)	210	-	-	-	-	(26)	441
Rubber/Plastics	(5)	30	(2)	25	(4)	120	(1)	75	(2)	295	(1)	294	(1)	551	-	-	(16)	1390
Other Manufacturing	(2)	4	-	-	-	-	-	-	-	-	-	-	-	-	(1)	1000	(3)	1004
Not Classified	(32)	156	(17)	253	(4)	102	-	-	(2)	280	(1)	236	(2)	1280	(1)	1483	(59)	3790
Total (Sum)	(168)	743	(72)	993	(43)	1283	(25)	1747	(23)	3204	(12)	3190	(10)	6907	(8)	13850	(361)	31917

Source: SWISS (1986)

Notes: Figures in parenthesis represent number of firms in each group, other figures represent number of employees.

Table A.5

Size Distribution of Manufacturing Firms by Industry Type for County of Dyfed - January 1986

Employment Size Band

Dyfed	1 - 9		10 - 19		20- 49		50 - 99		100 - 199		200 - 499		500 - 999		1000 +		All	
Metal Mfg. & Extraction	(52)	191	(7)	91	(9)	279	(2)	132	-	-	-	-	-	-	-	-	(70)	693
Chemicals	(4)	20	-	-	(2)	74	-	-	-	-	-	-	-	-	-	-	(6)	94
Metal Goods	(30)	120	(3)	45	(7)	183	(3)	191	-	-	-	-	-	-	-	-	(43)	539
Mechanical Engr.	(35)	146	(12)	181	(10)	307	(2)	113	(1)	160	(1)	260	(1)	776	-	-	(62)	1943
Office Machinery	(1)	5	-	-	-	-	-	-	-	-	-	-	-	-	-	-	(1)	5
Electrical Engr.	(10)	43	(2)	29	(1)	35	-	-	(3)	104	-	-	-	-	-	-	(16)	508
Motor Vehicles/ Parts	(10)	40	(1)	10	-	-	-	-	-	-	-	-	-	-	(1)	1229	(12)	1279
Transport Equip.	(15)	67	(1)	16	(1)	43	(1)	85	-	-	-	-	-	-	-	-	(18)	221
Instruments	(3)	10	-	-	(2)	65	(2)	146	(1)	107	(2)	433	-	-	-	-	(3)	10
Food/Drink/Tobacco	(66)	312	(14)	184	(10)	304	(3)	221	-	-	-	-	-	-	-	-	(98)	1529
Textiles	(14)	55	(5)	66	-	-	-	-	(2)	260	(1)	253	-	-	-	-	(22)	634
Leather Goods	(7)	22	-	-	-	-	-	-	-	-	-	-	-	-	-	-	(7)	22
Footware/Clothing	(23)	77	(3)	35	(1)	40	(2)	137	-	-	(1)	204	-	-	-	-	(31)	593
Wood/Furniture	(85)	266	(5)	66	(3)	79	(2)	128	(1)	123	-	-	-	-	-	-	(97)	662
Paper/Publishing	(33)	120	(3)	38	(5)	172	(1)	86	(1)	108	-	-	-	-	-	-	(43)	524
Rubber/Plastics	(7)	30	(2)	28	(2)	47	(1)	80	(1)	132	(3)	827	-	-	-	-	(16)	1144
Other Manufacturing	(15)	50	(1)	10	-	-	-	-	-	-	-	-	-	-	-	-	(16)	60
Not Classified	(10)	41	(5)	67	(3)	123	(1)	50	-	-	(2)	584	(1)	580	-	-	(22)	1445
Total (Sum)	(420)	1615	(64)	866	(56)	1686	(20)	1323	(15)	1692	(10)	2128	(3)	1356	(1)	1229	(583)	11895

Source: SWISS (1986)

Notes: Figures in parenthesis represent number of firms in each group, other figures represent number of employees.

Table A.6

Size and Distribution of Manufacturing Subsidiaries in all Counties*

Employment Size Band

	1 - 9		10 - 19		20 - 49		50 - 99		100 - 199		200 - 499		500 - 999		1000 +		All	
Metal Mfg. & Extraction	(14)	76	(8)	114	(15)	509	(10)	685	(14)	2090	(5)	1465	(3)	2212	-	-	(69)	7152
Chemicals	(1)	6	(1)	19	(6)	230	(4)	232	(4)	591	(7)	2184	(3)	1580	(3)	3085	(26)	7927
Metal Goods	(4)	23	(5)	67	(6)	192	(8)	599	(10)	1447	(5)	1671	-	-	(2)	6362	(40)	10361
Mechanical Engr.	(14)	70	(4)	57	(12)	367	(6)	372	(5)	761	(5)	1516	(2)	1376	-	-	(48)	4524
Office Machinery	-	-	(1)	17	-	-	-	-	-	-	-	-	(1)	500	-	-	(2)	517
Electrical Engr.	(8)	41	(1)	17	(6)	218	(7)	509	(8)	1238	(6)	1801	(1)	714	(2)	4810	(39)	9348
Motor Vehicle/ Parts	(2)	16	(3)	40	(1)	27	-	-	(3)	425	-	-	(2)	1634	(3)	449	(13)	5062
Transport Equip.	(3)	20	-	-	(1)	43	(2)	150	(2)	290	(1)	200	(1)	875	-	-	(10)	1578
Instruments	(1)	8	-	-	(1)	27	(2)	146	(2)	257	(2)	418	-	-	-	-	(8)	850
Food/Drink/Tobacco	(2)	11	(3)	36	(4)	134	(5)	324	(3)	404	(5)	1800	(3)	1640	-	-	(25)	4362
Textiles	(1)	7	(1)	14	-	-	-	-	(2)	244	(1)	260	-	-	-	-	(5)	525
Leather Goods	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Footware/Clothing	(1)	3	(2)	28	(1)	26	(1)	59	(9)	1249	(5)	1402	(1)	500	-	-	(20)	3267
Wood/Furniture	(3)	17	(5)	75	(13)	453	(8)	514	(12)	1693	(4)	1237	-	-	-	-	(46)	3997
Paper/Publishing	(6)	25	(3)	38	(5)	184	(4)	276	(4)	535	(3)	777	(1)	750	(1)	1046	(27)	3634
Rubber/Plastics	(8)	42	(1)	16	(5)	140	(5)	311	(5)	691	(6)	1661	(1)	557	-	-	(32)	3912
Other Manufacturing	-	-	(1)	14	(2)	72	(1)	57	-	-	(1)	228	-	-	(2)	2290	(7)	2661
Not Classified	(15)	102	(14)	197	(7)	227	(7)	478	(4)	595	(3)	820	(2)	1330	(2)	3583	(54)	7332
Total (Sum)	(84)	483	(53)	751	(85)	2844	(70)	4723	(87)	12507	(59)	17437	(22)	14162	(15)	25325	(475)	78235

* Dyfed, Mid Glam, S. Glam, W. Glam

Source: SWISS (1986)

Notes: Figures in parenthesis represent number of firms in each group, other figures represent number of employees.

Table A.7

Size and Industrial Distribution of Manufacturing Subsidiaries in Mid Glamorgan

Employment Size Band

	1 - 9		10 - 19		20 - 49		50 - 99		100 - 199		200 - 499		500 - 999		1000 +		All	
Metal Mfg. & Extraction	(3)	20	(3)	48	(4)	137	(3)	198	(8)	1143	(1)	214	-	-	-	-	(22)	1760
Chemicals	-	-	(1)	19	(3)	111	(3)	168	(2)	260	(5)	1633	(1)	580	(1)	1000	(16)	3771
Metal Goods	(1)	4	-	-	(1)	37	(4)	310	(7)	1079	(4)	1386	-	-	-	-	(17)	2816
Mechanical Engr.	(3)	21	(2)	34	(3)	112	(1)	54	(1)	164	(4)	1280	(1)	600	-	-	(15)	2215
Office Machinery	-	-	-	-	-	-	-	-	-	-	-	-	(1)	500	-	-	(1)	500
Electrical Engr.	-	-	-	-	(1)	39	(4)	312	(4)	312	(4)	690	(4)	1191	-	-	(2)	4810
Motor Vehicles/ Parts	(1)	8	(2)	22	(1)	27	-	-	(3)	425	-	-	(1)	764	-	-	(8)	1246
Transport Equip.	-	-	-	-	-	-	-	-	(1)	160	-	-	(1)	875	-	-	(2)	1035
Instruments	(1)	8	-	-	-	-	(2)	146	(1)	107	(1)	218	-	-	-	-	(5)	479
Food/Drink/Tobacco	-	-	-	-	(1)	32	(1)	80	(1)	120	(3)	1150	-	-	-	-	(6)	1382
Textiles	(1)	7	(1)	14	-	-	-	-	(1)	104	(1)	260	-	-	-	-	(4)	385
Leather Goods	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Footware/Clothing	(1)	3	(1)	15	-	-	(1)	59	(6)	881	(3)	992	(1)	500	-	-	(13)	2450
Wood/Furniture	-	-	(1)	16	(8)	275	(4)	261	(6)	921	(3)	939	-	-	-	-	(22)	2412
Paper/Publishing	-	-	-	-	(1)	45	(2)	115	(3)	390	(2)	567	(1)	750	-	-	(9)	1867
Rubber/Plastics	(1)	9	-	-	(3)	66	(5)	311	(2)	264	(3)	840	-	-	-	-	(14)	1490
Other Manufacturing	-	-	(1)	14	(1)	40	(1)	57	-	-	(1)	228	-	-	(1)	1290	(5)	1629
Not Classified	(7)	54	(8)	106	(3)	84	(6)	428	(2)	315	-	-	-	-	(1)	2100	(27)	3087
Total (Sum)	(19)	134	(20)	288	(30)	1005	(37)	2499	(48)	7023	(35)	10895	(7)	4569	(5)	9200	(201)	35616

Source: SWISS (1986)

Notes: Figures in parenthesis represent number of firms in each group, other figures represent number of employees.

Table A.8

Size and Industrial Distribution of Manufacturing Subsidiaries in South Glamorgan

	Employment Size Band																	
	1 - 9		10 - 19		20 - 49		50 - 99		100 - 199		200 - 499		500 - 999		1000 +		All	
Metal Mfg. & Extraction	(1)	8	(1)	16	(4)	148	(3)	180	(1)	152	(3)	881	-	-	-	-	(13)	1385
Chemicals	-	-	-	-	(1)	45	(1)	64	(1)	167	(1)	350	(2)	1000	-	-	(6)	1626
Metal Goods	(2)	10	(4)	52	(2)	63	(1)	60	(2)	251	(1)	285	-	-	-	-	(12)	721
Mechanical Engr.	(9)	48	(1)	11	(6)	179	(1)	60	(2)	814	(1)	236	-	-	-	-	(20)	848
Office Machinery	-	-	(1)	17	-	-	-	-	-	-	-	-	-	-	-	-	(1)	17
Electrical Engr.	(4)	26	(1)	17	(2)	59	(3)	197	-	-	-	-	-	-	-	-	(10)	299
Motor Vehicles/ Parts	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Transport Equip.	(1)	6	-	-	-	-	(1)	65	-	-	(1)	200	-	-	-	-	(3)	271
Instruments	-	-	-	-	(1)	21	-	-	(1)	150	-	-	-	-	-	-	(2)	171
Food/Drink/Tobacco	-	-	-	-	-	-	(2)	132	-	-	(1)	350	(2)	1110	-	-	(5)	1592
Textiles	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Leather Goods	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Footware/Clothing	-	-	-	-	(1)	26	-	-	-	-	-	-	-	-	-	-	(1)	26
Wood/Furniture	(2)	15	(2)	31	(3)	106	(2)	125	(2)	300	-	-	-	-	-	-	(11)	577
Paper/Publishing	(4)	18	(3)	38	(1)	40	(1)	75	(1)	145	-	-	-	-	(1)	1046	(11)	1362
Rubber/Plastics	(4)	17	(1)	16	-	-	-	-	-	-	-	-	(1)	500	-	-	(6)	533
Other Manufacturing	-	-	-	-	(1)	32	-	-	-	-	-	-	-	-	-	-	(1)	32
Not Classified	-	-	-	-	(1)	30	-	-	-	-	-	-	-	-	-	-	(1)	30
Total (Sum)	(27)	148	(14)	198	(23)	749	(15)	958	(10)	1479	(8)	2302	(5)	2610	(1)	1046	(103)	9490

Source: SWISS (1986)

Notes: Figures in parenthesis represent number of firms in each group, other figures represent number of employees.

Table A.9

Size and Industrial Distribution of Manufacturing Subsidiaries in West Glamorgan

Employment Size Band

	1 - 9		10 - 19		20 - 49		50 - 99		100 - 199		200 - 499		500 - 999		1000 +		All	
Metal Mfg. & Extraction	(6)	28	(2)	23	-	-	(3)	240	(5)	795	(1)	370	(3)	2212	-	-	(20)	3668
Chemicals	(1)	6	-	-	-	-	-	-	(1)	164	(1)	201	-	-	(2)	2085	(5)	2456
Metal Goods	(1)	9	(1)	15	(1)	40	(2)	158	(1)	117	-	-	-	-	(2)	6362	(8)	6701
Mechanical Engr.	(1)	8	(1)	12	(1)	20	(3)	195	(1)	120	-	-	-	-	-	-	(7)	335
Office Machinery	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Electrical Engr.	(3)	11	-	-	(2)	85	-	-	(2)	218	(2)	610	(1)	714	-	-	(10)	1688
Motor Vehicles/ Parts	(1)	8	(1)	18	-	-	-	-	-	-	-	-	(1)	870	(2)	2920	(5)	3816
Transport Equip.	-	-	-	-	-	-	-	-	(1)	30	-	-	-	-	-	-	(1)	30
Instruments	-	-	-	-	-	-	-	-	-	-	(1)	200	-	-	-	-	(1)	200
Food/Drink/Tobacco	-	-	(1)	12	-	-	-	-	-	-	(1)	300	(1)	530	-	-	(3)	842
Textiles	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Leather Goods	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Footware/Clothing	-	-	-	-	-	-	-	-	(2)	268	(1)	206	-	-	-	-	(3)	474
Wood/Furniture	-	-	(2)	28	(1)	35	-	-	(4)	472	(1)	298	-	-	-	-	(9)	841
Paper/Publishing	(1)	3	-	-	(1)	25	-	-	-	-	(1)	210	-	-	-	-	(3)	238
Rubber/Plastics	(1)	7	-	-	(2)	74	-	-	(2)	295	(1)	294	(1)	551	-	-	(7)	1221
Other Manufacturing	-	-	-	-	-	-	-	-	-	-	-	-	-	-	(1)	1000	(1)	1000
Not Classified	(7)	45	(6)	91	(1)	20	-	-	(2)	280	(1)	236	(1)	750	(1)	1483	(19)	2905
Total (Sum)	(23)	133	(14)	199	(9)	299	(8)	593	(21)	2909	(11)	2925	(8)	5627	(8)	13850	(102)	26535

Source: SWISS (1986)

Notes: Figures in parenthesis represent number of firms in each group, other figures represent number of employees.

Table A.10

Size and Industrial Distribution of Manufacturing Subsidiaries in Dyfed

Employment Size Band

Dyfed	1 - 9		10 - 19		20 - 49		50 - 99		100 - 199		200 - 499		500 - 999		1000 +		All	
Metal Mfg. & Extraction	(4)	20	(2)	27	(7)	224	(1)	68	-	-	-	-	-	-	-	-	(14)	339
Chemicals	-	-	-	-	(2)	74	-	-	-	-	-	-	-	-	-	-	(2)	74
Metal Goods	-	-	-	-	(2)	52	(1)	71	-	-	-	-	-	-	-	-	(3)	123
Mechanical Engr.	(1)	1	-	-	(2)	56	(1)	63	(1)	160	-	-	(1)	776	-	-	(6)	1056
Office Machinery	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Electrical Engr.	(1)	4	-	-	(1)	35	-	-	(2)	280	-	-	-	-	-	-	(4)	319
Motor Vehicles/ Parts	-	-	-	-	-	-	-	-	-	-	-	-	-	-	(1)	1229	-	-
Transport Equip.	(2)	14	-	-	(1)	43	(1)	85	-	-	-	-	-	-	-	-	(4)	142
Instruments	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Food/Drink/Tobacco	(2)	11	(2)	26	(3)	103	(2)	122	(2)	284	-	-	-	-	-	-	(11)	546
Textiles	-	-	-	-	-	-	-	-	(1)	140	-	-	-	-	-	-	(1)	140
Leather Goods	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Footware/Clothing	-	-	(1)	13	-	-	-	-	(1)	100	(1)	204	-	-	-	-	(3)	317
Wood/Furniture	(1)	2	-	-	(1)	37	(2)	128	-	-	-	-	-	-	-	-	(4)	167
Paper/Publishing	(1)	4	-	-	(2)	74	(1)	86	-	-	-	-	-	-	-	-	(4)	167
Rubber/Plastics	(2)	9	-	-	-	-	-	-	(1)	132	(2)	527	-	-	-	-	(5)	668
Other Manufacturing	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Not Classified	(1)	3	-	-	(2)	93	(1)	50	-	-	(2)	584	(1)	580	-	-	(7)	1310
Total (Sum)	(15)	68	(5)	66	(23)	791	(10)	673	(8)	1096	(5)	1315	(2)	1356	(1)	1229	(69)	6594

Source: SWISS (1986)

Notes: Figures in parenthesis represent number of firms in each group, other figures represent number of employees.

Table A.11

Percentage of Independent Manufacturing Firms Within Each Classification in S. Wales - January 1986

Employment Size Band

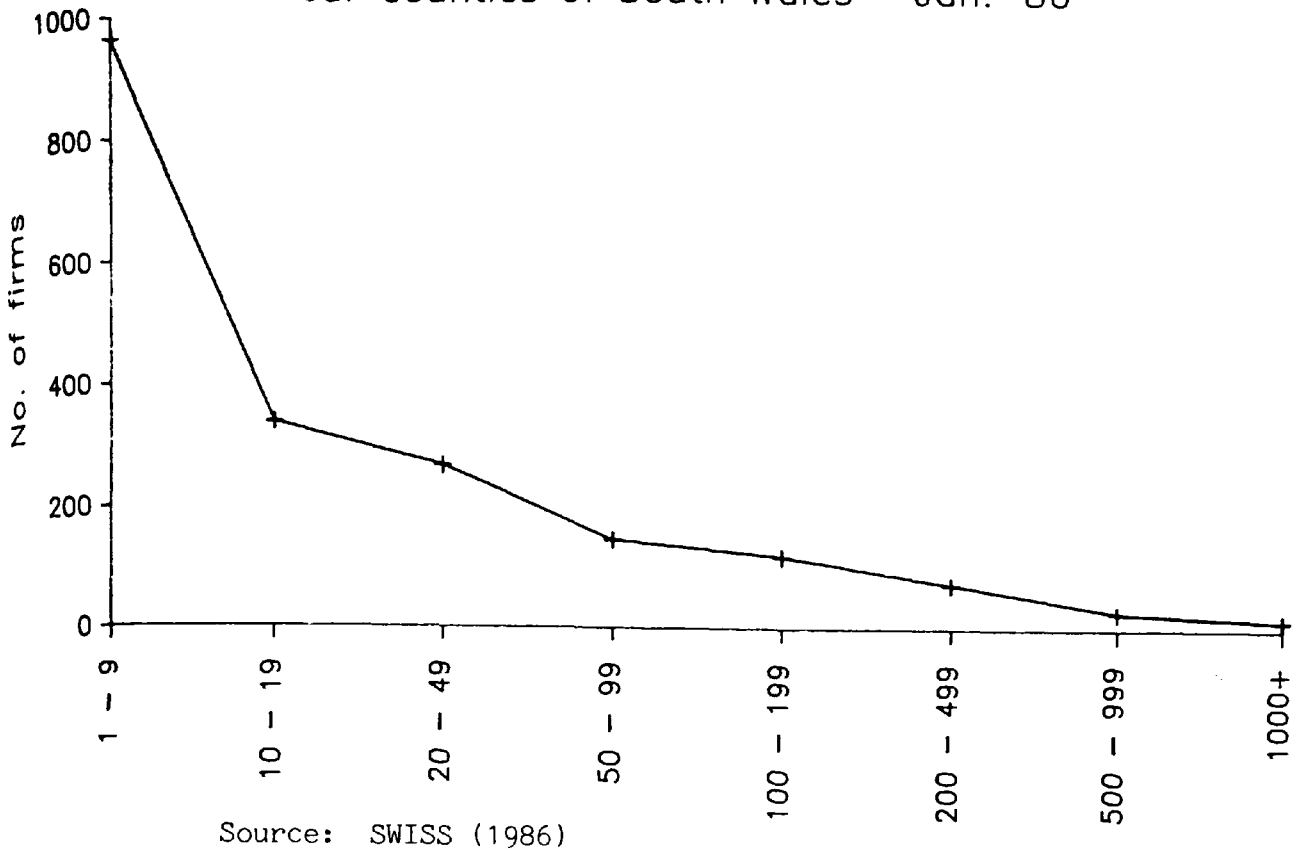
S. Wales	1 - 9		10 - 19		20 - 49		50 - 99		100 - 199		200 - 499		500 - 999		1000 +		All	
Metal Mfg. & Extraction	(84.8)	79.6	(65.2)	62.9	(46.4)	44.1	(33.3)	33.8	(17.6)	13.1	(28.6)	25.6	(40.0)	33.6	-	-	(63.1)	30.8
Chemicals	(93.3)	92.4	(75.0)	69.4	(14.3)	8.7	(33.3)	38.9	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(46.9)	3.5
Metal Goods	(96.4)	95.2	(87.5)	88.2	(84.2)	82.6	(57.9)	52.3	(16.7)	14.2	(28.6)	30.8	-	-	(0)	(0)	(82.5)	23.8
Mechanical Engr.	(89.1)	87.5	(94.5)	94.4	(78.2)	77.6	(68.4)	67.0	(44.4)	39.6	(37.5)	24.0	(33.3)	35.3	-	-	(83.7)	54.7
Office Machinery	(100)	100	(50.0)	46.9	-	-	-	-	-	-	-	-	(0)	(0)	-	-	(60.0)	4.3
Electrical Engr.	(81.4)	77.0	(94.1)	92.4	(57.1)	56.3	(46.2)	37.6	(27.3)	4.9	(0)	(0)	(50.0)	52.4	(0)	(0)	(63.6)	18.2
Motor Vehicles/ Parts	(88.2)	78.7	(57.1)	50.0	(85.7)	87.4	(100)	100	(25.0)	36.6	-	-	(0)	(0)	(0)	(0)	(68.3)	26.2
Transport Equip.	(88.5)	81.7	(100)	100	(0)	(0)	(0)	(0)	(33.3)	34.1	(0)	(0)	(0)	(0)	-	-	(75.0)	17.3
Instruments	(93.3)	88.9	(100)	100	(83.3)	92.4	(60)	58.6	(33.3)	29.4	(60)	60.8	-	-	-	-	(72.4)	34.3
Food/Drink/Tobacco	(97.4)	97.1	(88.9)	90.2	(80.0)	68.6	(61.5)	64.3	(57.1)	26.0	(28.6)	28.3	(0)	(0)	(100)	100	(84.0)	49.6
Textiles	(99.4)	90.7	(83.3)	82.5	(100)	100	(100)	100	(33.3)	33.0	(75.0)	77.1	-	-	-	-	(86.1)	71.1
Leather Goods	(100)	100	(100)	100	(100)	100	-	-	(100)	100	-	-	-	-	-	-	(100)	100
Footware/Clothing	(96.9)	97.5	(77.8)	79.6	(88.9)	91.1	(83.3)	81.8	(100)	4.3	(0)	(0)	(0)	(0)	-	-	(72.2)	23.3
Wood/Furniture	(98.1)	97.1	(82.1)	79.2	(27.8)	22.0	(42.9)	43.1	(14.3)	11.5	(0)	(0)	-	-	-	-	(80.5)	30.4
Paper/Publishing	(94.1)	93.6	(90.9)	91.5	(80.8)	74.7	(42.9)	45.3	(50.0)	47.4	(0)	(0)	(50.0)	48.3	(0)	(0)	(85.1)	28.5
Rubber/Plastics	(70.4)	71.6	(92.9)	91.3	(68.8)	68.0	(61.5)	61.9	(28.6)	30.9	(0)	15.3	(50.0)	47.0	-	-	(62.8)	42.6
Other Manufacturing	(100)	100	(83.3)	81.3	(50.0)	41.0)	(50.0)	57.8	(100)	100	(0)	(0)	-	-	(0)	(0)	(86.3)	18.5
Not Classified	(75.4)	53.8	(63.2)	64.1	(56.3)	50.9	(36.4)	37.6	(33.3)	25.2	(0)	(0)	(33.3)	28.5	(0)	(0)	(61.4)	19.9
Total (Sum)	(91.3)	88.2	(84.3)	83.7	(68.2)	63.6	(52.1)	48.1	(27.5)	23.6	(21.3)	18.0	(27.6)	21.5	(0)	1.9	(75.6)	28.3

Source: SWISS (1986)

Notes: Figures in parenthesis represent number of firms in each group, other figures represent number of employees.

Figure A.1

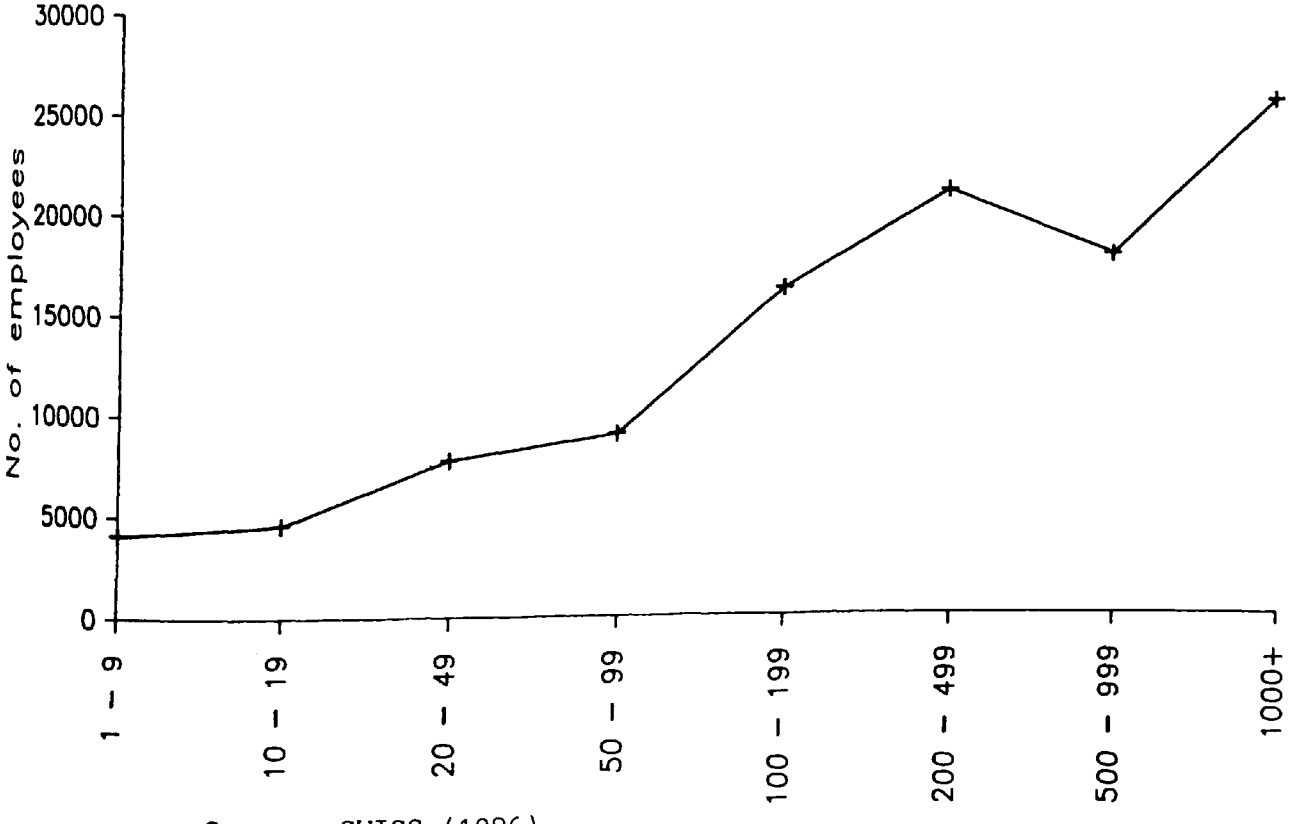
Size distribution of manufacturing firms in four counties of South Wales Jan. '86



Source: SWISS (1986)

Figure A.2

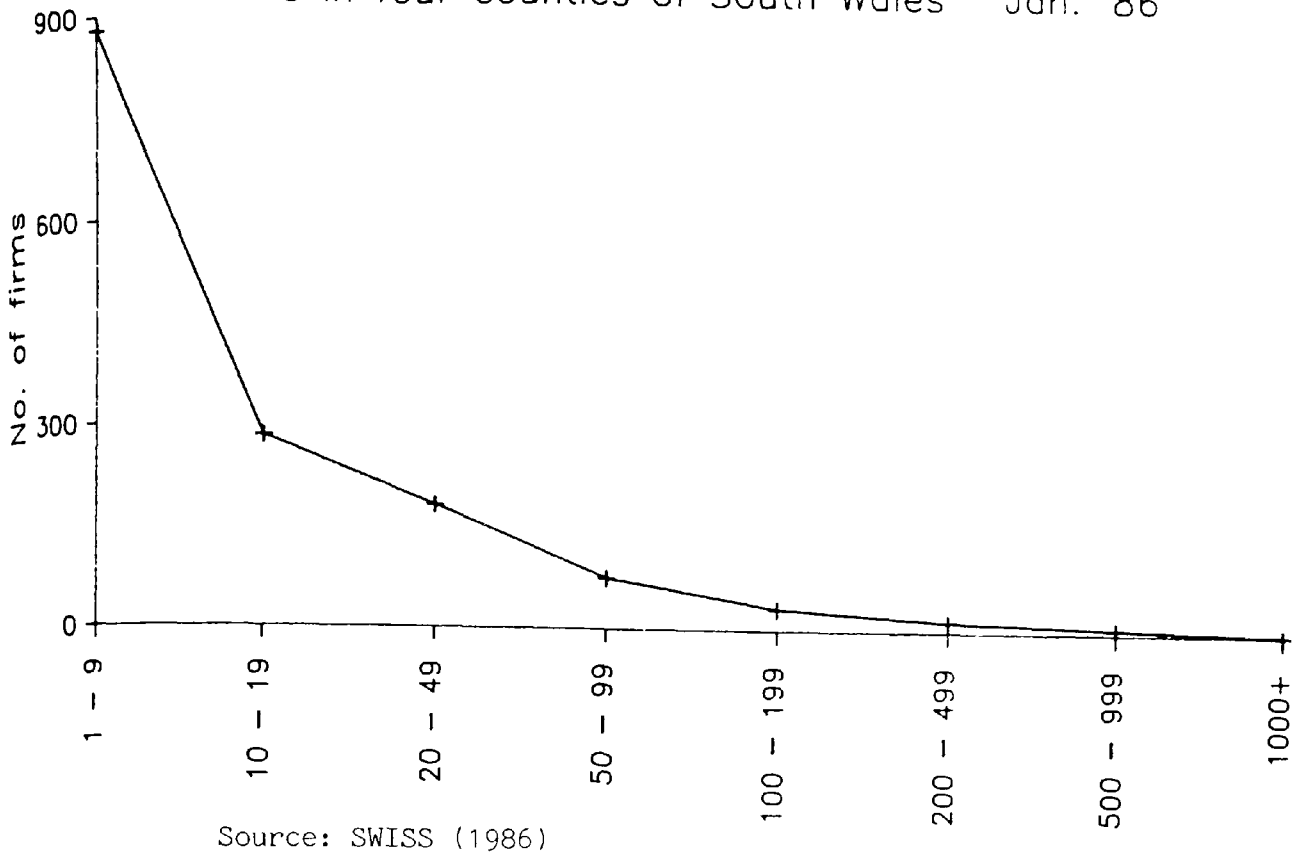
Size distribution of manufacturing employees in four counties of South Wales Jan. '86



Source: SWISS (1986)

Figure A.3

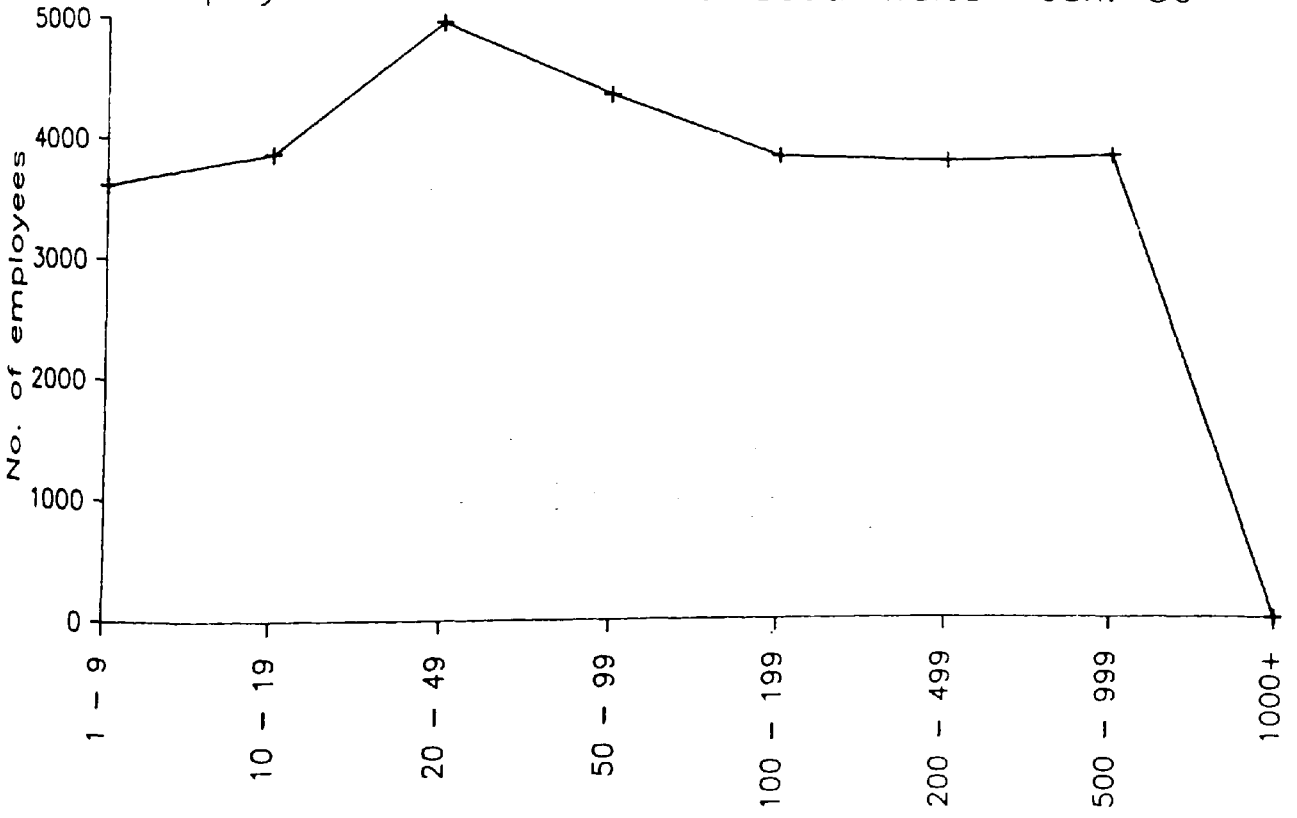
Size distribution of "independent" manufacturing firms in four counties of South Wales Jan. '86



Source: SWISS (1986)

Figure A.4

Size distribution of "independent" manufacturing employees in four counties of South Wales Jan. '86



Source: SWISS (1986)

APPENDIX B

Questionnaire

SMALL FIRMS START-UP QUESTIONNAIRE

Small Business Unit W.R.M.C.

1. (a) Was approach to Enterprise Agency made before or after start-up? .....

   (b) Name of interviewee .....

   (c) Date of interview .....

   (d) Duration of interview .....

Characteristics of Entrepreneur

2. Entrepreneur: Male ( ) Female ( )

3. Age on start-up ..... less than 20 ( )
   20-30 ( )
   30-40 ( )
   40-50 ( )
   50 + ( )

4. How many OTHER start-ups have you been involved in? ( )

5. Any experience of a small business environment before start-up? (Is Yes, please specify) Yes ( ) No ( )

   .....

6. Previous employment (Yes) ( ) (No) ( ) and position held .....

7. How many jobs prior to start-up? ( )

   (a) Was last job in a Small Firm ( ) 0-50 employees
   Medium Firm ( ) 51-200 employees
   Large Firm ( ) 200+ employees

   (b) Nature of business of last employer .....

   (c) Name of Company of last employer .....

   (d) Location of Head Office of last employer .....

8. Reason for leaving previous employer prior to setting up your own business:

.....

.....

.....

9. County of Birth .....

County of residence prior to start-up .....

10. Education: Number of years at school ( )
Further Education (specify)
Certificates/Diplomas, etc.

11. Number of hours worked:

	Currently	Start-Up
Hours per day		
Days per week		

12. Why have you become self-employed?

.....

.....

.....

DESCRIPTION OF BUSINESS

13. Name of this business .....

14. Did you
(a) found this firm yourself ( )
(b) found this firm with others ( )
(c) buy this firm ( )
(d) inherit ( )
(e) other (specify) ( )

15. Date of start-up .....

16. Location of start-up .....

17. Legal form:

	NOW	START-UP
Sole trader	( )	( )
Partnership	( )	( )
Cooperative	( )	( )
Public (quoted) limited Co.	( )	( )
Private (unquoted) limited Co.	( )	( )
Unlimited Co.	( )	( )

18. Nature of business .....

19. How long did it take to set up this business? .....

20. Numbers employed including yourself

At start-up	( )
6 months	( )
1 year	( )
2 years	( )
Now	( )

21. Currently employing:

Full-time Male	( )
Full-time Female	( )
Part-time Male	( )
Part-time Female	( )
Cooperating Relatives	( )
Sub-contract workers Male	( )
Sub-contract workers Female	( )

Questionnaire (cont/d)

22. Within the next 2 years, do you expect to change employment?

Take on	( )	
Make redundant	( )	(Nos.)
Same	( )	

23. What do you expect to happen to total sales next year?

Fall	( )
Same	( )
Increase	( )
Increase considerably	( )

24. (a) Why did you decide on this location for start-up?

.....

.....

.....

(b) Do you expect to move?

.....

25. Is this site (Excellent) (Good) (Reasonable) (Poor)

26. Are you located in an assisted area? (Yes) (No) (Don't Know)

27. When deciding on this location did you take account of assisted areas and their incentives?

(Yes) (No)

If Yes, please give details:

.....

28. Did you look at alternative locations or sites? (Yes) (No)

29. Did you look at cost comparisons between sites? (Yes) (No)

30. Approximate size of floor space: .....

31. Do you own this site and/or factory?

FINANCE

32. Source of Finance for start-up:
(If none of the boxes apply, please specify)

	Start-Up	Now
Personal savings	( )	( )
House mortgage	( )	( )
Loans/gifts	( )	( )
Loans/overdraft	( )	( )
Partnership	( )	( )
Grant aid	( )	( )

Other (specify) .....

33. Number of sources of finance used: ( )

34. Amount of start-up capital: .....

less than £100	( )
100-500	( )
500-1000	( )
1000-5000	( )
5000-15000	( )
15000-50000	( )
50000-100000	( )
over 100000	( )

35. How would you describe the relationship with your Bank?

	Start-Up	Now
Excellent	( )	( )
Good	( )	( )
Reasonable	( )	( )
Poor	( )	( )

36. List the major problems encountered by trying to raise outside finance:

.....

.....

.....

37. When starting up did you prepare a Business Plan?

		Yes	No
If Yes,	(a) Did you conduct market research?	( )	( )
	(b) Did you produce cash flow forecasts?	( )	( )
	(c) Have you used this business plan?	( )	( )

(d) Comments:

.....

.....

38. Please indicate:

Are you aware of:	Yes	No
Small Firms Loan Guarantee Scheme		
Did you make use of it?	( )	( )
Enterprise Allowance Scheme		
Did you make use of it?	( )	( )
Business Expansion Scheme		
Did you make use of it?	( )	( )
Regional Development Grants		
Did you make use of it?	( )	( )
Selective Financial Assistance		
Did you make use of it?	( )	( )

39. What criteria do you think Banks use in assessing applications for Finance of a business start-up?

.....

.....

.....

40. How would you describe your contacts with the following agencies/bodies?

	Excellent	Good	Reasonable	Poor
W.D.A.	( )	( )	( )	( )
Welsh Office	( )	( )	( )	( )
Enterprise Agencies	( )	( )	( )	( )
County Councils	( )	( )	( )	( )
Small Firms Service	( )	( )	( )	( )

41. Did the availability of Finance:-

	Yes	No
(a) cause the size of your start-up to be smaller than you intended	( )	( )
(b) cause you to prolong the start-up process	( )	( )
(c) prevent you from proceeding with other business ideas before starting this one	( )	( )

42. Who does the book-keeping?
(If none of the boxes apply, please specify)

Yourself	( )
Wife/Husband	( )
Employee	( )
Relative/Friend	( )
No-one	( )
Professional	( )
Outside Firm	( )

.....

43. For what purpose do you use book-keeping?

Tax only ( ) In running the business ( )

.....

.....

PRICING

44. Percentage change in the price you charge since start-up

.....

45. How did you determine the price at which you sold your product or service when you first started trading?

.....

.....

.....

.....

.....

46. How do you determine prices now?

.....

.....

.....

.....

47. Have you experimented with changing your prices? Yes ( ) No ( )

.....

48. If there was a fall in demand for your product would you say that your major reaction would be to:

reduce output ( )
reduce prices ( )
remain the same ( )

49. What goals do your pricing/output decisions aim to achieve?

	Start-Up	Now
survival	( )	( )
satisfactory profit	( )	( )
profit maximisation	( )	( )
revenue maximisation	( )	( )
market share	( )	( )
other (specify)	( )	( )

.....

INVESTMENT

		Yes	No
50. At start-up did you plan ahead?	Up to 12 months	( )	( )
	Over 12 months	( )	( )
	Not at all	( )	( )

51. Do you currently plan ahead?	Yes	( )
	Not at all	( )

52. (a) At start-up what % of capital spending was for secondhand equipment? ( ) %

(b) Currently ( ) %

53. How did you decide the scale (output/service) at which you started up?

.....

.....

.....

.....

54. What % of any investment you intend would you class as:-

Replacement investment ( ) %

Active investment ( ) %

55. When studying worthwhile investment

	Yes	No
(a) Do you/have you made detail cash flow forecasts for investment	( )	( )

(b) Do you use any of the following (descriptions given)

payback period	( )	( )
rate of return method	( )	( )
discounted cash flow	( )	( )
none	( )	( )
trial and error	( )	( )

56. When considering any investment in physical equipment do you take account of:-

Taxation	( )
Inflation	( )
Incentives/grants	( )
Interest rates	( )
Depreciation	( )

57. Given your current facilities, what level of capacity is currently being used (% capacity utilisation)?

.....

58. What limits your production to this level of utilisation? If you try to expand what will stop you first?

.....

.....

.....

.....

.....

COMPETITION

59. If you had competition at start-up, were you aware of any obstacles to your entry into their market? Yes ( ) No ( )

.....

If Yes, did the competition react to your entry? Yes ( ) No ( )

(a) Did you expect them to react? ( ) ( )

(b) How did they react? (specify) ( ) ( )

.....

.....

.....

60. Do you consider your firm to be innovative? Yes No

(a) at start up ( ) ( )
(b) since start up ( ) ( )

.....

61. How has your business developed compared with your expectations at start-up? (specify)

.....

.....

.....

MARKET RESEARCH

62. At start-up what proportion of the following were in each area?

	Local (30 miles)	Regional	U.K.	Abroad
All supplies				
Service inputs				
Main input				
All products/services				
Fixed investment				

63. What proportion of the following is currently in each area?

	Local (30 miles)	Regional	U.K.	Abroad
All supplies				
Service inputs				
Main inputs				
All products/services				
Fixed investment				

64. To whom do you sell?

Final consumer	( )
Manufacturer	( )
Wholesaler	( )
Retailer	( )
Export	( )

65. Who sells your product? (a) At start-up .....

(b) Now .....

65.1 How did you find out where to obtain local supplies?

.....

.....

65.2 How did you identify potential buyers?

.....

.....

65.3 How did you find your largest customer?

.....

66. How do you distribute your goods?

	Start-Up	Now
Own Transport	( )	( )
Road	( )	( )
Air	( )	( )
Hired vehicle	( )	( )
Rail	( )	( )

67. (a) What proportion of your total sales are accounted for by your largest customer?

.....

(b) What proportion of your total raw materials are accounted for by your largest supplier?

.....

68. Is your main competition from:

Imports	( )
Small firms in U.K.	( )
Large firms in U.K.	( )

69. If you have a competitive advantage does it lie in:

Price	( )
Quality/Precision	( )
Prompt delivery	( )
Contacts	( )
Flexibility	( )
Service	( )
Locational factors	( )

.....

.....

70. Do you advertise? Yes ( ) No ( )

71. If Yes, in what form?

	Start-Up	Now
Trade journals	( )	( )
Leaflets	( )	( )
Press	( )	( )
Yellow pages	( )	( )
Mail shots	( )	( )
T.V.	( )	( )
Radio	( )	( )

72. Have you conducted market research since start-up?

Yes ( ) No ( )

73. What exactly have you done?

.....

74. Have you thought of:

	Yes	No
(a) Diversifying	( )	( )

.....

(b) Moving completely into another product/service area	( )	( )

75. Are you looking for new opportunities to move into?

Yes ( ) No ( )

76. Do you look for changes in technology which may affect your business?

Yes ( ) No ( )

PROBLEMS

77. General problems encountered in setting up your business:

.....

.....

.....

.....

.....

78. Name/list agencies who could help at start-up and in the initial years:

79. Name agencies actually contacted:

(a) at start-up

(b) since

80. What do you think of the amount and standard of help available to start-up situations in general?
(Rate amount of help - too much, enough, not enough)

.....

(Rate standard of help - Excellent, Good, Reasonable, Poor)

.....

81. Any problems in terms of your own skills or limitations?

.....

MISCELLANEOUS

82. Turnover now .....

Turnover in first year of start-up .....

83. (a) In your opinion, how profitable is your firm? (as a percentage of turnover)

very profitable	( )
considerably profitable	( )
moderately profitable	( )
slightly profitable	( )
not profitable	( )

(b) If possible give exact figure (%) .....

84. Has the growth of the firm been stunted because:

(a) difficult to obtain finance Yes ( ) No ( )

.....

(b) other (specify)

.....

85. Have you attended any courses on business development?

	Yes	No
(a) Prior to start-up	( )	( )
(b) Since start-up	( )	( )

Would you be interested in attending courses?

( ) ( )

If Yes, are there any specific courses you would like to attend? (Please specify)

.....

.....

86. What advice would you offer to an entrepreneurial minded young person who would like to start their own business?

.....

.....

.....

87. Is the shortage of any particular kind of labour a problem? If Yes, explain:

.....

.....

APPENDIX C

CODING FRAMES

1. Reason for Self Employment

   a. No other jobs

   b. Always wanted to

   c. Money/become rich

   d. Independence

   e. Gap in market or opportunity - idea/innovation

   f. Finance available

   g. Hobby/interest

   h. Motivation, particular skills

   i. Other

2. Reason for Leaving Last Employment

   a. Health/disablement

   b. Redundancy

   c. Closure/liquidation

   d. Sack

   e. Left specifically to start-up

   f. Previous business problems

   g. End of contract or temporary job

   h. Unemployed

   i. Other

Coding Frames (cont/d)

3. Problems in Obtaining Outside Finance

a. None needed

b. No problems

c. No collatoral or security

d. Not prepared to risk house

e. Timescales for funding decisions

f. Interest rates too high

g. Banks lack of belief in idea

h. Problems with Small Firms Loan Guarantee Scheme

i. Women having to have husbands collatoral

j. Other

4. Criteria Adopted by Banks (Perceived by Founders)

a. Personal stake

b. Guarantees/security/credit worthiness

c. Business plan

d. Profitability and potential

e. Track record experience

f. Personality - confidence in founder

g. Low gearing

h. Other

5. Competitors Reaction

a. No competition

b. No reaction

c. Cut prices

d. Supplier pressure

e. Increased advertising

f. Higher profile - better servicing

g. Physical threats, court actions, etc.

h. Previous employer pressure

i. No reaction - were too small

j. Other

6. Pricing Methods

a. Price set to undercut competitors cost plus margin

b. Costs only, no markup

c. Price to cover living expenses

d. Price derived from business plan estimates

e. Our product is better/different from competitors:

(i) charge same price as them

(ii) undercut them

f. Set elsewhere - supplier or franchise

g. Cost plus - not so dependent on competitors

h. Price haggling - bargaining

i. Price discrimination

j. Crude guess - price feels right

k. Price set to equal existing firms

l. Other

7. Further Development of Business

a. Diversification

b. Integrate

c. Survive

d. Static - stable size

e. Offer better service

f. Improve stock levels - product range

g. Move premises

h. Expand market share - employment to grow

i. Other

8. Limits to Production

a. Market

b. Labour

c. Inefficiency

d. Law

e. Space

f. Cash flow

g. Own time, effort

h. Seasonal demand

i. Risk (courage)

j. Faith in labour

k. Technical (e.g. validation tests, confidence)

l. Skilled labour

m. Stock levels

n. Finance

o. Sales agents, etc.

p. Capacity of machinery, etc.

q. Marketing effort and advertising

9. General Problems Encountered

a. None really at start-up

b. Finding the working market

c. Mainly in setting up rather than running it

d. Adequate finance for stocks

e. Getting suppliers to supply -
Negotiate suppliers terms/outside Wales suppliers

Coding Frames (cont/d)

f. No practical/technical (space) help

g. Lock profits to plough back

h. Raising money

i. Own motivation, impetus, risk factor

j. Lack of help generally - info/general

k. Finding premises at size and price

l. Bureaucracy - timescales (time to plan, etc. and to react)

m. Size to start - price to start

n. Client reputation - slow process - confidence

o. Secondhand equipment - problems of info and where to buy

p. Time to train staff

q. Employees (finding) - problem

r. Partnership problems

s. Recession

t. Debtor age - cash flow

u. Administration - burden

v. Credit worthiness

w. Advertising - burden

10. Factors Stunting Growth

a. Delay in supplies of

b. Site

c. Fire/accidents, etc./health

d. Labour problems due to: quality
trust
finance
delegating work

e. Marketing/sales drive

f. Management resources/own effort and time

g. Lack Government financial help - finance

h. Lack profitability - plough back

i. Competition

j. Space

k. Experience - lack of

l. Market demand - recession

m. Confidence of clients - product tests, etc.

n. Finance - cash flow

o. Seasonal trade

p. Bureaucracy and local planners

APPENDIX D

A Representative Model of New Firm Pricing

The evidence presented here suggests that a reasonable coherent approach to determining price and scale decisions of new firms is possible and such an explanation might apply equally well to both manufacturing and service sectors. It is suggested that an eclectic model can be made up of at least four stages.

Stage 1: The Competition

The entrepreneur has already decided the type of new business he wishes to start. The business is invariably of the functionally identical kind (to other products/services on the market), but this is of little help in further describing new firm behaviour. In most cases the founder regards his product as being different, or better than the competition and is at least likely to have some geographical location advantage.

The founder subjectively looks at the competition and bundles together their various product characteristics of quality, location, service, function, etc. These provide 'benchmarks' for the new firm's decision-making and can be represented by the third dimension in Figure 1. Points A,B,C and D represent the nearest competitors (based on the subjective bundles) and a range of prices. If the characteristics are close together then the new firm takes a representative or average price of these firms, or if there is only one near competitor it is likely that this price will be the one against which the new firm will benchmark its price.

At this point, a particular policy will be followed almost dogmatically - such a policy is usually one of two types:-

Type I : policy to undercut competitors

Type II : policy to charge the same price as competitors

Figure 1 The Competition

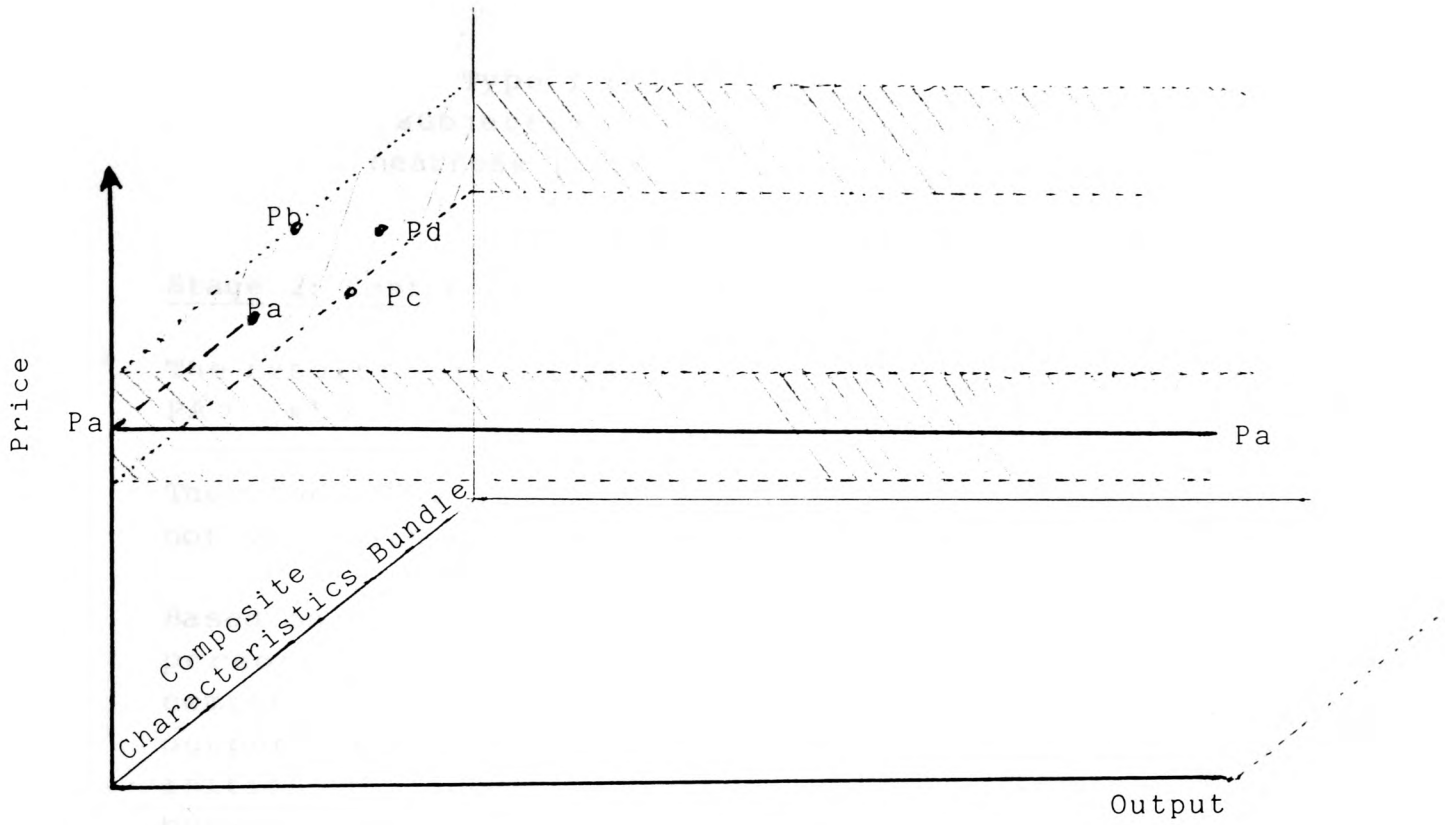
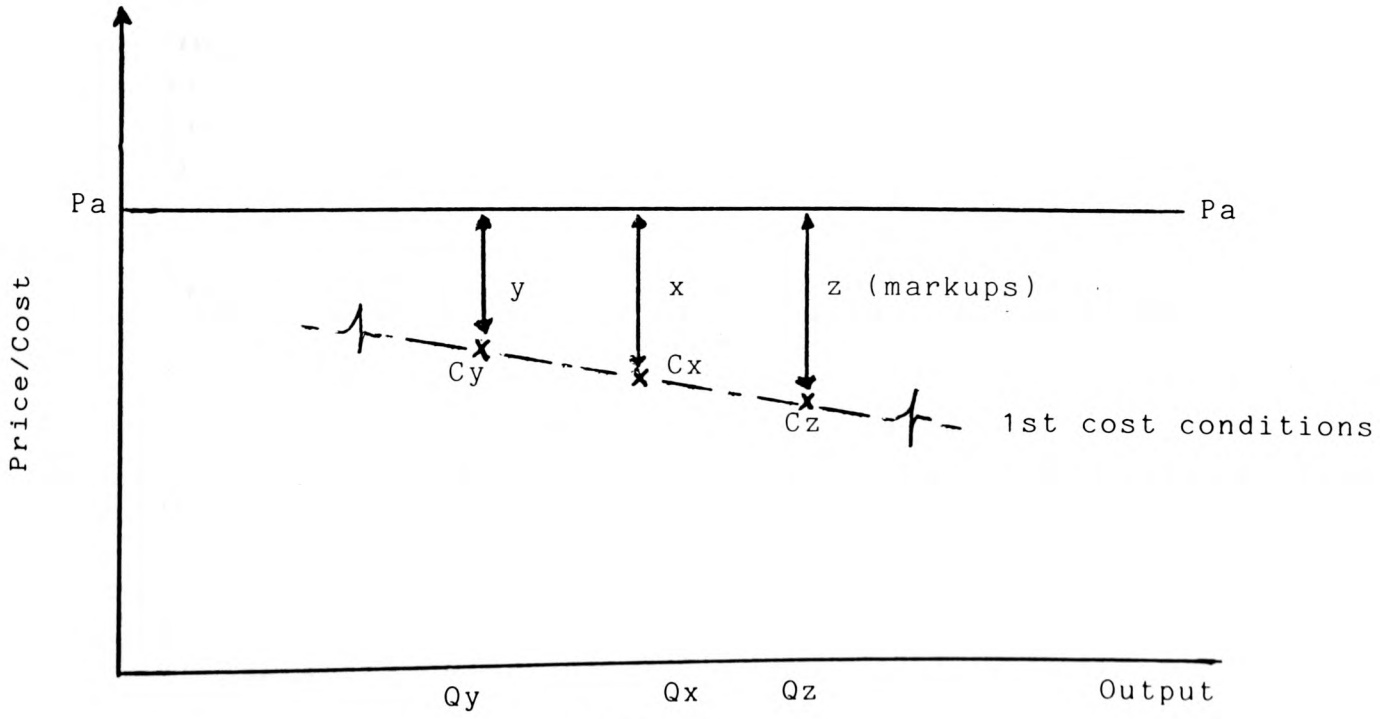


Figure 2 Primary Cost Conditions



If competitor firm A (nearest) is near the subjectively weighted (according to demand) bundle of characteristics adopted by the new firm, then there will be a tendency towards Type I policies, whereas if the characteristics bundle is far away, Type II policies are generally adopted. For Type I policies the amount of undercut is largely a subjective (guess), but is effected by the degree of nearness (substitutability) of competitors.

Stage 2: Cost Conditions

The resulting price which will be either PA for Type II or PA - (x) for Type I (where x = undercut).

Then the price itself becomes largely inflexible and does not vary with the scale of output as is shown by Figure 2.

Based on experience in that market and market research on personal contacts, or on the size of existing near competitors, the entrepreneur then arrives at a probable output level in his first year of trading (as given by Q initial in Figure 2). It is at this level that the entire business plan is usually based. Cash flow forecasts are then made with two fixed elements - price PA and output QI. With these fixed for the moment, average total costs are then calculated and are shown by point X . There is very little idea of where this point actually occurs on the firm's 'cost curve'. The result of this is that there is effectively a mark up of x above costs, but this mark up is not fixed or even a major variable for the firm to choose, but is determined by an already determined price level and the costs associated with probable output level QI.

Stage 3: The Safety Element

Most cash flow forecasting does include what is generally called sensitivity analysis, where variables are changed in the spreadsheet that effect the entire 'bottom line' outcome. However, two observations can be made:-

1. The price charged is very rarely a variable in sensitivity estimating.

Figure 3 The Safety Margin

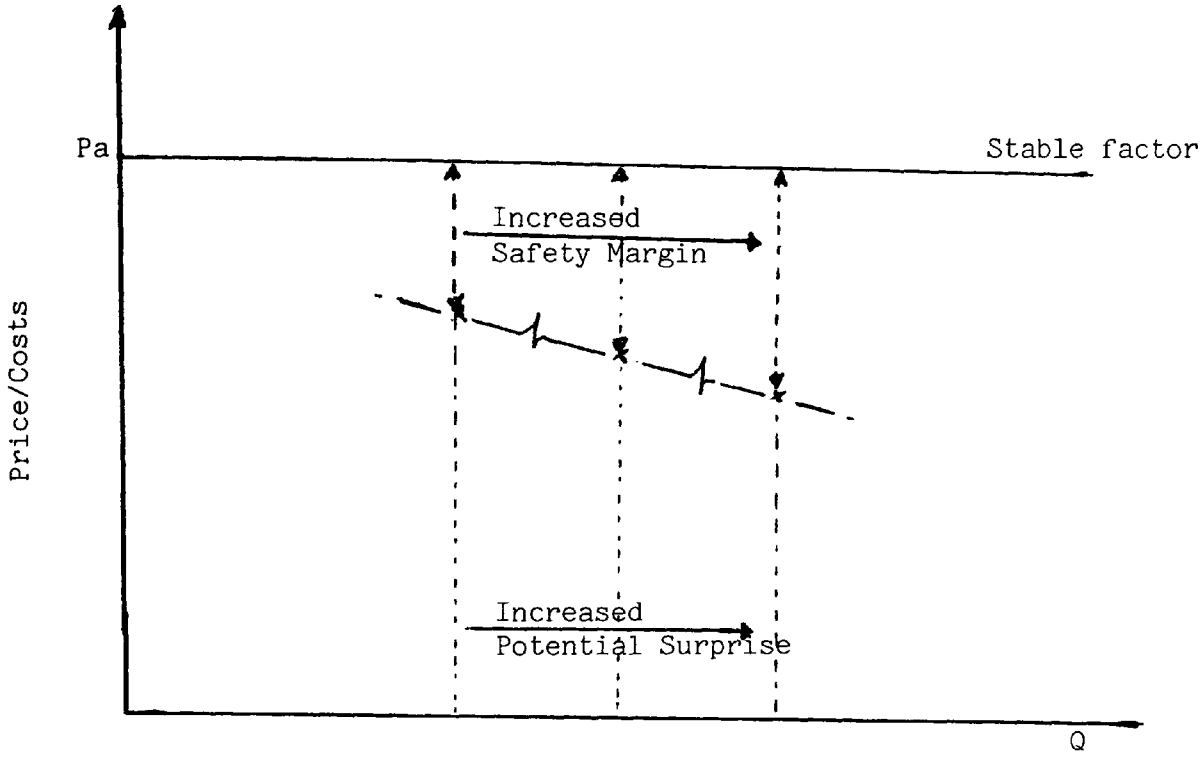
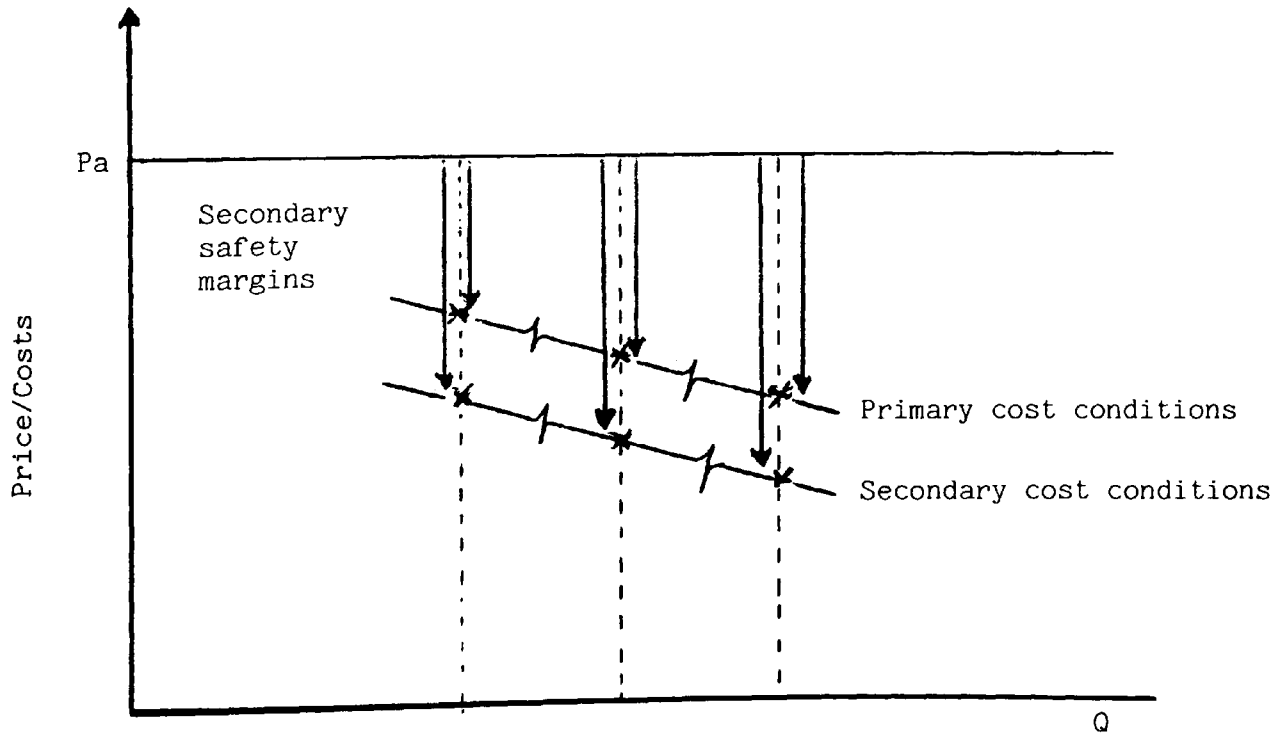


Figure 4 The Secondary Cost Equivalents



2. Sensitivity of output is the main concern, but this sensitivity is based on the original output estimated in the first place.

At start-up the price elasticities are operationally meaningless, with flow forecasting based on what happens if sales are 10 or 20% lower than originally budgeted for with price assumed fixed.

Figure 2 shows two other cost points which are based on sensitivity of some % above or below QI. At an output of Q and Q , similar average total cost calculations are made and cost points emerge which may be joined up in theory, but in practice are seen as isolated points and not part of a general trend. This then means that there will probably be different mark up margins of y and z and x at the different points of budgeted output.

According to biological theories of the firms, however, the larger the mark up the greater the safety margin, since most firms are particularly aware of the need for survival in the early stages of life than the need for a secure margin between cost and price may be as important as overall cost conditions, although it is likely that there is some threshold level of safety margin required.

Figure 3 shows declining cost points with output, therefore, increased margins, however, working in the opposite direction is the increase in what Shackle calls potential surprise as budgeted levels of output are increased. Depending on the importance of the two effects, a scale of start-up will be initially determined and a price already set.

Stage 4: Changing Cost Base

The output or scale decided on in the above stage, however, may provide a margin which is not large enough to be acceptable security for the founder, as such the project may not go ahead at all, but more likely there will be a revision of the cost points set in the above stages. The cost points cx, cy and cz in Figure 2 may be termed the 'first cost conditions', however, at start-up the notion of fixed and minimum cost surface becomes

largely redundant. Founders may look to reduce costs by starting at home, by starting part-time or increasing the use of secondhand equipment. These revisions make operational a set of secondary cost conditions - shown in Figure 4 - and is also associated with increased margins. While these increased margins allow for geater security, possibly allowing the project to become viable, it is also probable that there is a trade off between lower secondary cost surfaces and future infant growth to the extent that growth of the business is also a goal of the founder after some level of survival safety margin is achieved then a lower limit is set to the secondary cost conditions as internal to rather than external to the firm. More risk averse entrepreneurs may be on low potential surprise and on second cost conditions. Less risk averse founders may start on higher acceptable potential surprise functions and on first cost conditions. It is possible that both will be seen to have the same average costs and by definition the same mark up margins, despite having widely different scales of start-up.

Indeed it implies that less risk averse founders will own firms which grow faster during the infant stage than those who are more risk averse, the same result derived by Kihlstrom and Laffont (see Chapter 3).

APPENDIX E

Methods for Estimating the Dynamics of Employment Change in New Firms

Lack of data prevents 'a components of change' approach to the analysis of job creation in the Welsh economy. Even if such data were available there are considerable practical problems related to its preparation (see for example, Armington and Odle, 1984, criticism of Birch's data) and more significantly there are problems associated with interpretation of the results of components of change approaches. Interpretation problems include the need to distinguish between net and gross changes and the problem of movements between size bands used. (For example, see CBI 1980 and Storey 1980).

Research may be better devoted to separating out the effects of individual components of change rather than aggregate various effects. These individual components can then be compared with other components immediately related to them. Such an approach requires quite detailed data which is very rarely available. However, it is possible to adopt this approach if a number of assumptions are made and borne in mind when drawing conclusions from the results.

The approach adopted here is to isolate the employment changes that occur within the first three years of the formation of a business. It avoids problems of net or gross job creation since no attempt is made to estimate changes in existing firms, either contractions, closures or expansions.

A base year should be set and assumed that all the firms being formed in that year start up at the very beginning of the base year in order to simplify the classification of results. Data is, therefore, required on the number of new businesses being formed and ideally an average over a number of years would provide a more representative figure for the base year.

The next step would be to estimate the number of jobs created by the actual start-up of firms at the beginning of the base year requiring data on the typical size of start-up in different sectors.

To progress from this stage, however, requires two further sets of data. The first is the trend in employment growth in the infant firms at regular intervals and the second is the rate of failure of new firms according to their lifespan.

If these were available it would be possible to follow overall employment created by new firms with time and furthermore, it would be possible to break down this overall picture into new firm failure, contraction and growth.

It is obvious that such data is not readily accessible, but it is possible to make estimates. The base year chosen for estimates for the Welsh economy is 1983. This is because there is a convenient overlap between the present survey and figures for regional business start-ups based on VAT returns. In the first case the present interview survey carried out during 1985 was based on a number of new firms that actually started in 1983. In the second case the Department of Trade and Industry has published figures based on VAT registrations which show the total number of business starts and stops during the period 1980 to end 1983. This data is available at both the regional and county level.

By averaging the annual number of start-ups over this period and using this as the new firm formation figure for the base year 1983, it becomes possible to perform further operations. At the end of the base year employment changes will be made up of losses due to failure of some of the new firms which will depend on the average size of firms at the time of failure and the number of firms failing, counteracting these losses is the growth of the surviving new firms as they progress through their early or infant part of their life cycle.

Data Sources

Average business start-ups in 1983 can be obtained from British Business, 18 January 1985, based on the analysis of VAT registrations.

The main problem, however, comes from the need to estimate rates of failure of new firms over their initial lifespan. The only figures available are for the U.K. as a whole and are based on the 9 years ending on 31st December 1982. (See Appendix 1 and 2, Lifespan of Businesses Registered for VAT, British Business, 7th October 1983). The data available from this source are the percentage of all failures that occur within 6-month intervals after a business had been registered for VAT purposes and is available by sector of trade.

It is necessary to rework these figures though, so that the rates of failure of all new firms can be estimated rather than the timing of actual firms that failed. This is possible since totals are available for the number of firms that survived the 9 year period. (63% of all firms starting at the beginning of this period had failed by 1982).

By weighting lifespan figures based on all failures by the % number of firms that survived, the following rates of failure of all new firms can be derived.

Percentage of Firms Failing According to Age of Firms

Period	Manufacturing	Business* Services
0-6 months	4.9%	4.4%
6-12 months	6.7%	6.6%
12-24 months	12.8%	13.7%
24-36 months	11.3%	12.5%
% failing in first 3 years	35.7%	37.2%
% failing within 9 years	60%	64%

Source: DTI VAT Statistics - See Text

Thus, for example, 1 in 20 of all manufacturing firms will have closed within the first 6 months of starting up. The service sector figures are weighted averages of finance and professional services, transport and other services sector, but do not include retail, construction or motor trades sector, to make the data directly compatible with the present survey.

It is not possible to generalise the growth of all new firms as a whole based on this survey particularly, because of the dominance in terms of numbers of new retailing firms. Because of this, estimates will only be made for:- (a) new manufacturing (production) firms; and (b) new business service firms.

Chapter 9 provides data on the average size of firms in manufacturing and business service firms for the first three years of life.

Method of Calculation

Estimates of job creation in new firms in Wales, as shown in Table 9.1, are derived from the available information outlined above. Take the manufacturing sector by way of example. During 1980-83 some 513 manufacturing firms set up on average each year in Wales. This is taken as the start-up total in the base year 1983 and for simplicity it is assumed that all 513 started up at the same time.

Using average start-up sizes in terms of full time people employed in the firm, including the founders, the total new employment in start-ups is calculated. For Wales almost 1200 full time manufacturing jobs would be created immediately.

The picture within 6 months of start-up is calculated with the estimated failure rates, i.e. 5% of the firms will have closed down causing a reduction in employment equal to the number of firms failing, multiplied by the number of people employed at this early stage. Failures are assumed to occur evenly over the period and growth is also uniform within each period. Thus, the number of jobs lost in the first 6 months is the number of firms failing, multiplied by the average size of the firm at 3 months of age (calculated by straight line growth). Firms that

survive the 6-month period, however, do grow substantially and in this early stage more than offset the losses due to closure.

The process is repeated for each time period (and for the business services sector). It can be estimated, therefore, that within 3 years of birth new firms starting in 1983 will create directly 3,800 manufacturing jobs. Because of the lack of service sector firms sampled in this survey, which were over 2 years old, it is not possible to extend the analysis of the jobs created in the business service sector to the third year. However, by the end of the second (1985) year, new firms starting up in 1983 will have created almost 11,000 jobs in manufacturing and business service sectors combined.

Table 9.4 extends the picture to the manufacturing sector of the U.K. as a whole, but the major assumption in this case is that the average size of new manufacturing firms in Wales is the same as that in the rest of the U.K. Care should be taken in the interpretation of these results, therefore, but the average size of new independent firms surveyed by Storey for the North East was 9.4 compared with the 10.6 of the 3-year old firms in the present survey.

Table 9.2 shows the individual components which go towards the net change in new firm employment and are calculated along the same lines. Vacancies refer to the number of jobs created in each period including the founders themselves at the start-up stage and is calculated by the number of surviving firms multiplied by the increase in average size between periods.

The redundancies made from new firms include failed entrepreneurs and redundant workers, the former calculated at a rate of 1.4 founders per new firm. (The average for the sample as a whole).

As a result of simple averaging, internal calculating errors do exist, but are generally below 4%. The following is a list of assumptions made:-

1. Failure rates for the period 1973-82 hold for the mid 1980's.

2. Overall, U.K. failure rates according to lifespan, are consistent across regions of the U.K. (A number of studies show that failure rates across regions are fairly standard, but the growth side of the equation is the one that varies - see Ganguly 1981, Birch 1979).

3. Average employment growth of the sample here is representative of all manufacturing and business services in Wales as a whole.

4. The numbers of new registrations in any one year are all new independent firms and births, rather than branch plants and in-moves. This is obviously unrealistic, however, in terms of numbers of firms, these in-moves and subsidiaries make up only a small proportion of the total. (e.g. Appendix, Tables A1-A10 show that even in the manufacturing sector less than 8% of firms of less than 10 employees are not independent). In terms of jobs however, only a few major branch plants may have considerable impact.

5. The births and deaths of firms are adequately described by VAT registrations and deregistrations. For an assessment of these problems see Ganguly 1982 and British Business, 29 January 1982.

6. The average growth of firms interviewed, i.e. survivors, is the same as the growth rate of the failures. If, for example, the failures tend to be smaller on average, then the number of jobs estimated as redundancies will be overestimated.

APPENDIX F

A SIMPLE POLICY SIMULATION

In Chapter 5 it was shown that the criteria adopted by the financial screening process filters the applications for finance for business start-ups according to the different emphasis put onto each aspect of the proposal. In this way the importance of various barriers to entry were assessed by a third party (the banks). It then becomes important to identify the nature of the financial filters in order to examine the significance of the primary sources of entry barriers.

As with barriers to entry, small firms policies cannot be taken at face value since the effects of these policies themselves will probably have to pass through the filter of the financial screening process. Small firm policies such as the enterprise allowance scheme will have two effects; firstly, it may increase the number of people who are potential entrepreneurs and secondly, it will effect the ability of those potential entrepreneurs to actually start a business.

Thus the rate of business start-up is increased because more try to start-up (and therefore obtain finance) and also because a larger proportion of these may be accepted because of the improvement that the various policies may have on the nature of the proposals for funding. The first of these effects has been studied by Willmer and Hoggard (1983), who treat the interactions between potential entrepreneurs and active entrepreneurs as being simulated by an epidemic process. They argue that a policy designed to boldly increase the rate of start-ups without regard for likely success of the ventures is just as likely to be inefficient at sustaining the growth of new viable businesses as is a policy which would support only potential sound new ventures.

Willmer and Hoggard do not, however, take into account the fact that even ventures supported by small firms policies still have to be screened by the banks with 'bad' applicants still being prevented to start-up. On the other hand those firms that are supported are likely to stand a higher chance of obtaining backing and

successfully obtaining financial support from the banks. It is this second effect to which we now turn, in particular to simulate the effect that certain small firms policies have on the rate at which applications to banks for start-up finance are accepted.

The model used is extremely simple and is based on the criteria which banks use in assessing finance propositions (as described in Chapter 5). For simplicity, assume that the criteria used by banks can be classified into four groups: character, ability, means and proposal. These are in order of importance and are given subjective weights of .4 for character, .3 for ability, .2 for means and .1 for the proposal. We assume that every start-up has to be given financial backing by the banks and therefore has to go through the screening process.

The process is to simulate applications to banks by prospective entrepreneurs, each individual application will be made up by a set of different values for each of the four criteria based on a scale of 1 to 10[1]. Some applicants will be particularly strong in character or ability criteria, but score low on the financial means to invest in the project. We assume that these scores are randomly distributed and are independent of one another for each application. The scores are then weighted according to the importance put on to each criteria by the banks (as discussed above) and the results are assumed to produce an overall score for the applicant (ranging from 1 to 10).

This process is repeated a large number of times (3,000 in this case, simulating 3,000 applications to banks) and normal threshold scores are now estimated. These threshold scores show the score which is required, below which the application would be rejected and no business would start up, a score equal to or above this threshold

---

1 For example:

		weights	
Character	(1-10) = 5	x (.4)	
Ability	(1-10) = 5	x (.3)	
Means	(1-10) = 2	x (.2)	(Sum - applicants score)
Proposal	(1-10) = 6	x (.1)	

would obtain full bank financial support. The main problem comes in trying to estimate what this threshold score should be, however, very approximate estimates can be made. By comparing the number of enquiries about business start-ups received by the Small Firms Service in Wales (1984) with actual start-ups (from 1983 VAT statistics) and assuming that those who did not start-up were rejected by the screening process, we can see that the filter rate was not consistent across sectors.

Around a third of all manufacturing proposals actually succeed in starting up, but this filtering rate is substantially lower than the 54% of the 'other' (non retail) service sector[1]. Thus, in order to allow a third of all applications through the financial filter (given the values in this model), an overall score of 5.33 or above is required for applicants to start a manufacturing business. Likewise, a score of only 4.5 becomes the threshold for new service firm applications[2].

It is now possible to examine the limited effects of various policy options. Two policy instruments are considered, policy one is in the form of a financial assistance scheme such as the Enterprise Allowance Scheme, policy two is in the form of increasing the ability of applicants to set up and run a business - the growth of business advice centres, enterprise agencies and various business courses. Both these policies have their main effect on applicants who have relatively poor scores rather than those who, for example, have a high degree of financial means to go ahead with a project. For this reason such policies can be simulated by reducing the range at which scores can be recorded at the lower end of possible scores.

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1 Clearly these figures are very approximate, actual enquiries may not be sectorialy neutral with manufacturing enquiries more likely than those in the service sector.

2 A further assumption that the weights put on the criteria are consistent over sectors.

Table F.1 Estimates of Filtering Rates of New Business Proposals in Wales - Mid 1980's

Enquiries	Potential Starts	Filter Actual Starts	Rate
Manufacturing	1541	513	33.3
Retail	2630	1966	74.8
Other Services	4577	2485	54.3
All	8748	4504	51.5

Source: See Text

Table F.2 % Of Firms Being Accepted By The Screening Process

Sector	Before Policy	Policy one and two	
		20%	40%
Manufacturing	33	50	62
Service	54	70	81

Source: Simulation

For example, a 20% reduction in ranges of 'means' scores as a result of financial incentive schemes will be simulated by a random number score between 2 and 10 (with maximum scores being uneffected by the scheme).

Assuming that these schemes are introduced after the normal filtering rate was determined (as in Table 10.91) - and therefore the threshold limits - and taking both policies as having a 20% reduction in possible ranges, we will now be allowed to successfully pass through the financial filter and so start up. The simulation of applications in run again, this time with the reduced ranges as a result of the two policies adopted.

The results in Table 9.15 show that these types of policies have a greater effect on the rate of manufacturing start-ups than on the service sector, which were already high. Furthermore, although the criteria of 'means' and 'ability' are less important in terms of weights than criteria based on personal characteristics, policies aimed at both of these (at the 20% level)

increase the rate of business start-up in manufacturing firms by around 50% and by almost 30% in the service sector. Taking these new filter rates as a result of these policy options and comparing them with the estimates for new jobs created in new firms (Table 9.1), then another 260 manufacturing and 700 service firms may have been able to start-up. This would mean that policies to aid new firm formation could create an extra 1,400 manufacturing jobs and about 2,200 service jobs[1] within two years after start-up[2].

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1 Assuming that the rates of failure and growth of firms supported in this way are not effected.

2 Table 9.15 also shows that given the parameters of this model there are diminishing returns to both policies after some point.

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